GenCore version 5.1.6

nucleic - nucleic search, using sw model

on: October 16, 2003, 09:03:24 ; Search time 0.001 Seconds
(without alignments)
3310.114 Million cell updates/sec

.le: us-09-918-187-3
-fect score: 5221
quence: 1 ataaaaggggctgaggaaa.....aatctaaaaaaaaaaaaaaa 5221

oring table: IDENTITY_NUC
Gapop 10.0 , Gapext 0.5

arched: 18 seqs, 317 residues

tal number of hits satisfying chosen parameters: 36

nimum DB seq length: 8
ximum DB seq length: 50

st-processing: Minimum Match 0%
Maximum Match 100%
Listing first 25 summaries

tabase : rge.seq:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

sult No.	Score	% Query Match	Length	DB	ID	Description
1	17	0.3	20	1	e15159	TOIG of: e15159
2	17	0.3	20	1	e22402	TOIG of: e22402
3	16	0.3	20	1	ar162375	TOIG of: ar16237
4	15.2	0.3	19	1	e08331	TOIG of: e08331
5	15.2	0.3	19	1	e08331	TOIG of: e08331
6	15	0.3	18	1	ax008117	TOIG of: ax00811
7	15	0.3	18	1	ax008117	TOIG of: ax00811
8	15	0.3	18	1	ax008118	TOIG of: ax00811
9	15	0.3	18	1	ax008118	TOIG of: ax00811
10	15	0.3	18	1	ax008122	TOIG of: ax00812
11	15	0.3	18	1	ax008122	TOIG of: ax00812
12	15	0.3	18	1	ax008123	TOIG of: ax00812
13	15	0.3	18	1	ax008123	TOIG of: ax00812
14	14.8	0.3	18	1	ar009807	TOIG of: ar00980
15	14.4	0.3	16	1	bd066334	TOIG of: bd06633
16	14.4	0.3	18	1	ar098809	TOIG of: ar09880
17	14.4	0.3	18	1	ax329281	TOIG of: ax32928
18	14	0.3	14	1	ax659630	TOIG of: ax65963
19	14	0.3	14	1	ax659631	TOIG of: ax65963
20	13.8	0.3	17	1	a90279	TOIG of: a90279
21	13.8	0.3	17	1	bd065825	TOIG of: bd06582
22	13.8	0.3	17	1	e03610	TOIG of: e03610
23	13.8	0.3	17	1	e12897	TOIG of: e12897
24	12.4	0.2	14	1	ax659630	TOIG of: ax65963
25	12.4	0.2	14	1	ax659631	TOIG of: ax65963

ALIGNMENTS

RESULT 1
e15159
, TOIG of: e15159 check: 6095 from: 1 to: 20

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; LOCUS       E15159                    20 bp    DNA     linear   PAT 28-JUL-1999
; DEFINITION  Phosphorothioate antisence oligo DNA for human VEGF mRNA.
; ACCESSION   E15159
; VERSION     E15159.1  GI:5709842
; KEYWORDS    JP 1998052285-A/4.
; SOURCE      unidentified
;   ORGANISM  unidentified
;             unclassified.
; REFERENCE   1  (bases 1 to 20)
;   AUTHORS   Uchida,K.
;   TITLE     PREPARATION OF ANTISENSE NUCLEIC ACID
;   JOURNAL   Patent: JP 1998052285 A 4 24-FEB-1998;
;             TOAGOSEI CO LTD
; COMMENT     OS   None
;             OC   Artificial sequences.
;             PN   JP 1998052285-A/4
;             PD   24-FEB-1998
;             PF   20-MAY-1997 JP 1997129767
;             PR   23-MAY-1996 JP 96P   128192
;             PI   UCHIDA KIYOSHI
;             PC   C12N15/09,C07H21/02,C07H21/04;
;             CC   strandedness: Single;
;             CC   topology: Linear;
;             CC   hypothetical: No;
;             CC   anti-sense: Yes;
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;             FH
;             FT   source          1..20
;             FT                   /organism='Artificial sequences'.
; FEATURES             Location/Qualifiers
;      source          1..20
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;                      /mol_type="genomic DNA"
;                      /db_xref="taxon:32644"
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; ORIGIN
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  Best Local Similarity   100.0%;  Pred. No. 2.3;
  Matches   17;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2263 TCTTTCCTCTTTCTGCT 2279
              |||||||||||||||||
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RESULT 2
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;  TOIG of: e22402  check: 4588  from: 1  to: 20
;
; LOCUS       E22402                    20 bp    DNA     linear   PAT 18-JUN-2001
; DEFINITION  Antisense nucleic acid compound.
; ACCESSION   E22402
; VERSION     E22402.1  GI:13024045
; KEYWORDS    JP 1999042091-A/4.
; SOURCE      unidentified
;   ORGANISM  unidentified
;             unclassified.
; REFERENCE   1  (bases 1 to 20)
;   AUTHORS   Kinya,K., Yoko,M. and Kiyoshi,U.
;   TITLE     Antisense nucleic acid compound
;   JOURNAL   Patent: JP 1999042091-A 4 16-FEB-1999;
;             TOAGOSEI CHEM IND CO LTD
; COMMENT     OS   Unidentified
;             PN   JP 1999042091-A/4
;             PD   16-FEB-1999
;             PF   25-JUL-1997 JP 1997213838
;             PR
;             PI   KINYA KAMIYA,YOKO MATSUDA,KIYOSHI UCHIDA
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            PC   C12N15/09,A61K31/70,A61K48/00,C12Q1/68,C12N15/00 CC
            Strandedness: Single;
            CC   Topology: Linear;
            FH   Key             Location/Qualifiers
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            FT                   /organism='Unidentified'.
 EATURES             Location/Qualifiers
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)RIGIN

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2402

Query Match             0.3%;  Score 17;  DB 1;  Length 20;
Best Local Similarity   100.0%;  Pred. No. 2.3;
Matches   17;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

       2263 TCTTTCCTCTTTCTGCT 2279
            |||||||||||||||||
         17 TCTTTCCTCTTTCTGCT 1


SULT 3
162375
 TOIG of: ar162375  check: 5255  from: 1  to: 20

LOCUS       AR162375                20 bp    DNA     linear   PAT 17-OCT-2001
DEFINITION  Sequence 55 from patent US 6258600.
ACCESSION   AR162375
VERSION     AR162375.1  GI:16229549
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 20)
  AUTHORS   Zhang,H. and Cowsert,L.M.
  TITLE     Antisense modulation of caspase 8 expression
  JOURNAL   Patent: US 6258600-A 55 10-JUL-2001;
FEATURES             Location/Qualifiers
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                     /organism="unknown"
BASE COUNT        4 a        4 c        4 g        8 t
ORIGIN

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Query Match             0.3%;  Score 16;  DB 1;  Length 20;
Best Local Similarity   100.0%;  Pred. No. 3.8;
Matches   16;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

y       1772 GTTGATTATCTTCAGC 1787
             ||||||||||||||||
D          3 GTTGATTATCTTCAGC 18


ESULT 4
08331
  TOIG of: e08331  check: 5882  from: 1  to: 19

LOCUS       E08331                  19 bp    DNA     linear   PAT 29-SEP-1997
DEFINITION  Reverse transcription primer.
ACCESSION   E08331
VERSION     E08331.1  GI:2176448
KEYWORDS    JP 1994303997-A/2.
SOURCE      unidentified
  ORGANISM  unidentified
            unclassified.
REFERENCE ' 1  (bases 1 to 19)
;   AUTHORS   Takagi,S. and Kamioka,S.
;   TITLE     DETERMINATION OF CDNA
;   JOURNAL   Patent: JP 1994303997-A 2 01-NOV-1994;
;             NIPPON TELEGR & TELEPH CORP <NTT>
; COMMENT     OS   None
;             OC   Artificial sequences.
;             PN   JP 1994303997-A/2
;             PD   01-NOV-1994
;             PF   16 APR-1993 JP 1993112515
;             PI   TAKAGI SHIGERU, KAMIOKA SUKEYUKI
;             PC   C12Q1/68,C12N15/10;
;             CC   strandedness: Single;
;             CC   topology: Linear;
;             CC   hypothetical: No;
;             CC   anti-sense: Yes;
;             FH   Key             Location/Qualifiers
;             FH
;             FT   source          1. .19
;             FT                   /organism='Artificial sequences'.
; FEATURES             Location/Qualifiers
;      source          1. .19
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;                      /db_xref="taxon:32644"
; BASE COUNT        0 a        0 c        0 g       17 t       2 others
; ORIGIN
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;   E08331  Length: 19  October 16, 2003 08:44  Type: N  Check: 5882  ..
e08331

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  Best Local Similarity   93.8%;  Pred. No. 5.9;
  Matches   15;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4501 TTTTTTTTTTTTTTG 4516
              :|||.|||||.|||.:
Db          3 TTTTTTTTTTTTTTV 18


RESULT 5
e08331/c
;  TOIG of: e08331  check: 5882  from: 1  to: 19
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; LOCUS       E08331                  19 bp    DNA     linear   PAT 29-SEP-1997
; DEFINITION  Reverse transcription primer.
; ACCESSION   E08331
; VERSION     E08331.1  GI:2176448
; KEYWORDS    JP 1994303997-A/2.
; SOURCE      unidentified
;   ORGANISM  unidentified
;             unclassified.
; REFERENCE   1  (bases 1 to 19)
;   AUTHORS   Takagi,S. and Kamioka,S.
;   TITLE     DETERMINATION OF CDNA
;   JOURNAL   Patent: JP 1994303997-A 2 01-NOV-1994;
;             NIPPON TELEGR & TELEPH CORP <NTT>
; COMMENT     OS   None
;             OC   Artificial sequences.
;             PN   JP 1994303997-A/2
;             PD   01-NOV-1994
;             PF   16-APR-1993 JP 1993112515
;             PI   TAKAGI SHIGERU, KAMIOKA SUKEYUKI
;             PC   C12Q1/68,C12N15/10;
;             CC   strandedness: Single;
;             CC   topology: Linear;
;             CC   hypothetical: No;
;             CC   anti-sense: Yes;
;             FH   Key             Location/Qualifiers
;             FH
;             FT   source          1. .19
;             FT                   /organism='Artificial sequences'.
; FEATURES             Location/Qualifiers
;      source          1. .19
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                     /db_xref="taxon:32644"
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 ORIGIN

   E08331  Length: 19  October 16, 2003 08:44  Type: N  Check: 5882  ..
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 Query Match              0.3%;  Score 15.2;  DB 1;  Length 19;
 Best Local Similarity   93.8%;  Pred. No. 5.9;
 Matches   15;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

/       5206 TAAAAAAAAAAAAAAA 5221
             :|||||||||||||||
>         18 BAAAAAAAAAAAAAAA 3


ESULT 6
x008117
  TOIG of: ax008117  check: 1115  from: 1  to: 18

 LOCUS       AX008117                 18 bp    DNA     linear   PAT 06-SEP-2000
 DEFINITION  Sequence 2 from Patent WO9967378.
 ACCESSION   AX008117
 VERSION     AX008117.1  GI:9995742
 KEYWORDS    .
 SOURCE      synthetic construct
   ORGANISM  synthetic construct
             artificial sequences.
 REFERENCE   1
   AUTHORS   Damha,M.J., Parniak,M.A., Wilds,C., Arion,D., Noronha,A.M. and
             Borkow,G.
   TITLE     Antisense oligonucleotide constructs based on beta -arabinofuranose
             and its analogues
   JOURNAL   Patent: WO 9967378-A 2 29-DEC-1999;
             DAMHA MASSAD JOSE (CA); PARNIAK MICHAEL A (CA); WILDS CHRISTOPHER
             (CA); UNIV MCGILL (CA); ARION DOMINIQUE (CA); NORONHA ANNE M (CA);
             BORKOW GADI (IL)
 FEATURES             Location/Qualifiers
      source          1. .18
                      /organism="synthetic construct"
                      /mol_type="genomic DNA"
                      /db_xref="taxon:32630"
                      /note="Use as an oligomer"
 BASE COUNT       18 a       0 c       0 g       0 t
 ORIGIN

  AX008117  Length: 18  October 16, 2003 08:44  Type: N  Check: 1115  ..
x008117

 Query Match              0.3%;  Score 15;  DB 1;  Length 18;
 Best Local Similarity  100.0%;  Pred. No. 6.9;
 Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

y       5207 AAAAAAAAAAAAAAA 5221
             |||||||||||||||
b          1 AAAAAAAAAAAAAAA 15


RESULT 7
ax008117/c
  TOIG of: ax008117  check: 1115  from: 1  to: 18

 LOCUS       AX008117                 18 bp    DNA     linear   PAT 06-SEP-2000
, DEFINITION  Sequence 2 from Patent WO9967378.
, ACCESSION   AX008117
, VERSION     AX008117.1  GI:9995742
, KEYWORDS    .
, SOURCE      synthetic construct
,   ORGANISM  synthetic construct
,             artificial sequences.
, REFERENCE   1
;   AUTHORS   Damha,M.J., Parniak,M.A., Wilds,C., Arion,D., Noronha,A.M. and
;             Borkow,G.
;   TITLE     Antisense oligonucleotide constructs based on beta -arabinofuranose
;             and its analogues
;   JOURNAL   Patent: WO 9967378-A 2 29-DEC-1999;
;             DAMHA MASSAD JOSE (CA); PARNIAK MICHAEL A (CA); WILDS CHRISTOPHER
;             (CA); UNIV MCGILL (CA); ARION DOMINIQUE (CA); NORONHA ANNE M (CA);
;             BORKOW GADI (IL)
; FEATURES             Location/Qualifiers
;      source          1. .18
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;                      /mol_type="genomic DNA"
;                      /db_xref "taxon:32630"
;                      /note-"Use as an oligomer"
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; ORIGIN
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;  AX008117  Length: 18  October 16, 2003 08:44  Type: N  Check: 1115  ..
ax008117

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  Best Local Similarity  100.0%;  Pred. No. 6.9;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4501 TTTTTTTTTTTTTTT 4515
              |||||||||||||||
Db         18 TTTTTTTTTTTTTTT 4


RESULT 8
ax008118
;  TOIG of: ax008118  check: 4364  from: 1  to: 18
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; LOCUS       AX008118                 18 bp    mRNA    linear   PAT 06-SEP-2000
; DEFINITION  Sequence 3 from Patent WO9967378.
; ACCESSION   AX008118
; VERSION     AX008118.1  GI:9995743
; KEYWORDS    .
; SOURCE      synthetic construct
;   ORGANISM  synthetic construct
;             artificial sequences.
; REFERENCE   1
;   AUTHORS   Damha,M.J., Parniak,M.A., Wilds,C., Arion,D., Noronha,A.M. and
;             Borkow,G.
;   TITLE     Antisense oligonucleotide constructs based on beta -arabinofuranose
;             and its analogues
;   JOURNAL   Patent: WO 9967378-A 3 29-DEC-1999;
;             DAMHA MASSAD JOSE (CA); PARNIAK MICHAEL A (CA); WILDS CHRISTOPHER
;             (CA); UNIV MCGILL (CA); ARION DOMINIQUE (CA); NORONHA ANNE M (CA);
;             BORKOW GADI (IL)
; FEATURES             Location/Qualifiers
;      source          1. .18
;                      /organism="synthetic construct"
;                      /mol_type="mRNA"
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;                      /note="Use as an oligomer"
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; ORIGIN
;
;  AX008118  Length: 18  October 16, 2003 08:44  Type: N  Check: 4364  ..
ax008118

  Query Match              0.3%;  Score 15;  DB 1;  Length 18;
  Best Local Similarity  100.0%;  Pred. No. 6.9;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4501 TTTTTTTTTTTTTTT 4515
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Db          1 TTTTTTTTTTTTTTT 15


RESULT 9
ax008118/c
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 TOIG of: ax008118  check: 4364  from: 1  to: 18

LOCUS       AX008118                 18 bp    mRNA    linear   PAT 06-SEP-2000
DEFINITION  Sequence 3 from Patent WO9967378.
ACCESSION   AX008118
VERSION     AX008118.1  GI:9995743
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Damha,M.J., Parniak,M.A., Wilds,C., Arion,D., Noronha,A.M. and
            Borkow,G.
  TITLE     Antisense oligonucleotide constructs based on beta -arabinofuranose
            and its analogues
  JOURNAL   Patent: WO 9967378-A 3 29-DEC-1999;
            DAMHA MASSAD JOSE (CA); PARNIAK MICHAEL A (CA); WILDS CHRISTOPHER
            (CA); UNIV MCGILL (CA); ARION DOMINIQUE (CA); NORONHA ANNE M (CA);
            BORKOW GADI (IL)
FEATURES             Location/Qualifiers
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ORIGIN

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Query Match             0.3%;  Score 15;  DB 1;  Length 18;
Best Local Similarity   100.0%;  Pred. No. 6.9;
Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

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>         18 AAAAAAAAAAAAAAA 4


ESULT 10
x008122
 TOIG of: ax008122  check: 4364  from: 1  to: 18

LOCUS       AX008122                 18 bp    DNA     linear   PAT 06-SEP-2000
DEFINITION  Sequence 7 from Patent WO9967378.
ACCESSION   AX008122
VERSION     AX008122.1  GI:9995747
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Damha,M.J., Parniak,M.A., Wilds,C., Arion,D., Noronha,A.M. and
            Borkow,G.
  TITLE     Antisense oligonucleotide constructs based on beta -arabinofuranose
            and its analogues
  JOURNAL   Patent: WO 9967378-A 7 29-DEC-1999;
            DAMHA MASSAD JOSE (CA); PARNIAK MICHAEL A (CA); WILDS CHRISTOPHER
            (CA); UNIV MCGILL (CA); ARION DOMINIQUE (CA); NORONHA ANNE M (CA);
            BORKOW GADI (IL)
FEATURES             Location/Qualifiers
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                     /note="Use as an oligomer"
BASE COUNT        0 a      0 c      0 g     18 t
ORIGIN

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  Query Match             0.3%;  Score 15;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 6.9;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

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              |||||||||||||||
Db          1 TTTTTTTTTTTTTTT 15


RESULT 11
ax008122/c
;  TOIG of: ax008122  check: 4364  from: 1  to: 18
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; LOCUS       AX008122                 18 bp    DNA     linear   PAT 06-SEP-2000
; DEFINITION  Sequence 7 from Patent WO9967378.
; ACCESSION   AX008122
; VERSION     AX008122.1  GI:9995747
; KEYWORDS    .
; SOURCE      synthetic construct
;   ORGANISM  synthetic construct
;             artificial sequences.
; REFERENCE   1
;   AUTHORS   Damha,M.J., Parniak,M.A., Wilds,C., Arion,D., Noronha,A.M. and
;             Borkow,G.
;   TITLE     Antisense oligonucleotide constructs based on beta -arabinofuranose
;             and its analogues
;   JOURNAL   Patent: WO 9967378-A 7 29-DEC-1999;
;             DAMHA MASSAD JOSE (CA); PARNIAK MICHAEL A (CA); WILDS CHRISTOPHER
;             (CA); UNIV MCGILL (CA); ARION DOMINIQUE (CA); NORONHA ANNE M (CA);
;             BORKOW GADI (IL)
; FEATURES             Location/Qualifiers
;      source          1. .18
;                      /organism="synthetic construct"
;                      /mol_type="genomic DNA"
;                      /db_xref="taxon:32630"
;                      /note="Use as an oligomer"
; BASE COUNT        0 a      0 c      0 g     18 t
; ORIGIN
;
;  AX008122  Length: 18  October 16, 2003 08:44  Type: N  Check: 4364  ..
ax008122

  Query Match             0.3%;  Score 15;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 6.9;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5207 AAAAAAAAAAAAAAA 5221
              |||||||||||||||
Db         16 AAAAAAAAAAAAAAA 4


RESULT 12
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; LOCUS       AX008123                 18 bp    DNA     linear   PAT 06-SEP-2000
; DEFINITION  Sequence 8 from Patent WO9967378.
; ACCESSION   AX008123
; VERSION     AX008123.1  GI:9995748
; KEYWORDS    .
; SOURCE      synthetic construct
;   ORGANISM  synthetic construct
;             artificial sequences.
; REFERENCE   1
;   AUTHORS   Damha,M.J., Parniak,M.A., Wilds,C., Arion,D., Noronha,A.M. and
;             Borkow,G.
;   TITLE     Antisense oligonucleotide constructs based on beta -arabinofuranose
;             and its analogues
;   JOURNAL   Patent: WO 9967378-A 8 29-DEC-1999;
;             DAMHA MASSAD JOSE (CA); PARNIAK MICHAEL A (CA); WILDS CHRISTOPHER
;             (CA); UNIV MCGILL (CA); ARION DOMINIQUE (CA); NORONHA ANNE M (CA);
;             BORKOW GADI (IL)
; FEATURES             Location/Qualifiers
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     source          1. .18
                     /organism="synthetic construct"
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                     /note="Use as an oligomer"
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 RIGIN

 AX008123  Length: 18  October 16, 2003 08:44  Type: N  Check: 1115  ..
 08123

 )uery Match              0.3%;  Score 15;  DB 1;  Length 18;
 3est Local Similarity   100.0%;  Pred. No. 6.9;
 Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

       5207 AAAAAAAAAAAAAAA 5221
            |||||||||||||||
          1 AAAAAAAAAAAAAAA 15


 3ULT 13
 )08123/c
  TOIG of: ax008123  check: 1115  from: 1  to: 18

 LOCUS       AX008123                18 bp    DNA     linear   PAT 06-SEP-2000
 DEFINITION  Sequence 8 from Patent WO9967378.
 ACCESSION   AX008123
 VERSION     AX008123.1  GI:9995748
 KEYWORDS    .
 SOURCE      synthetic construct
   ORGANISM  synthetic construct
             artificial sequences.
 REFERENCE   1
   AUTHORS   Damha,M.J., Parniak,M.A., Wilds,C., Arion,D., Noronha,A.M. and
             Borkow,G.
   TITLE     Antisense oligonucleotide constructs based on beta -arabinofuranose
             and its analogues
   JOURNAL   Patent: WO 9967378-A 8 29-DEC-1999;
             DAMHA MASSAD JOSE (CA); PARNIAK MICHAEL A (CA); WILDS CHRISTOPHER
             (CA); UNIV MCGILL (CA); ARION DOMINIQUE (CA); NORONHA ANNE M (CA);
             BORKOW GADI (IL)
 FEATURES             Location/Qualifiers
      source          1. .18
                      /organism="synthetic construct"
                      /mol_type="genomic DNA"
                      /db_xref="taxon:32630"
                      /note="Use as an oligomer"
 BASE COUNT       18 a      0 c      0 g      0 t
 ORIGIN

  AX008123  Length: 18  October 16, 2003 08:44  Type: N  Check: 1115  ..
 008123

 Query Match              0.3%;  Score 15;  DB 1;  Length 18;
 Best Local Similarity   100.0%;  Pred. No. 6.9;
 Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

       4501 TTTTTTTTTTTTTTT 4515
            |||||||||||||||
         18 TTTTTTTTTTTTTTT 4


 ESULT 14
 r009807/c
   TOIG of: ar009807  check: 2437  from: 1  to: 18

 LOCUS       AR009807                18 bp    DNA     linear   PAT 04-DEC-1998
 DEFINITION  Sequence 5 from patent US 5756476.
 ACCESSION   AR009807
 VERSION     AR009807.1  GI:3968612
 KEYWORDS    .
 SOURCE      Unknown.
   ORGANISM  Unknown.
             Unclassified.
 REFERENCE   1  (bases 1 to 18)
   AUTHORS   Epstein,S.E., Speir,E.H. and Unger,E.F.
   TITLE     Inhibition of cell proliferation using antisense oligonucleotides
   JOURNAL   Patent: US 5756476-A 5 26-MAY-1998;
 FEATURES             Location/Qualifiers
      source          1. .18
                      /organism="unknown"
 BASE COUNT       3 a      4 c      7 g      4 t
 ORIGIN

  AR009807  Length: 18  October 16, 2003 08:44  Type: N  Check: 2437  ..
 ar009807

   Query Match              0.3%;  Score 14.8;  DB 1;  Length 18;
   Best Local Similarity   88.9%;  Pred. No. 7.5;
   Matches   16;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

 Qy        344 ACGATGCCCCTCTACTTG 361
               ||||||||||||  : ||
 Db         18 ACGATGCCCCTCAACGTG 1


 RESULT 15
 bd066334/c
   TOIG of: bd066334  check: 225  from: 1  to: 16

 LOCUS       BD066334                16 bp    DNA     linear   PAT 27-AUG-2002
 DEFINITION  An antisense oligonucleotide preparation method.
 ACCESSION   BD066334
 VERSION     BD066334.1  GI:22611937
 KEYWORDS    JP 2001511000-A/969.
 SOURCE      unidentified
   ORGANISM  unidentified
             unclassified.
 REFERENCE   1  (bases 1 to 16)
   AUTHORS   Schlingensiepen,K.H. and Brysch,W.
   TITLE     An antisense oligonucleotide preparation method
   JOURNAL   Patent: JP 2001511000-A 969 07-AUG-2001;
             BIOGNOSTIK GESELLSCHAFT FUR BIOMOLEKULARE DIAGNOSTIK MBH
 COMMENT     OS   Unknown
             PN   JP 2001511000-A/969
             PD   07-AUG-2001
             PF   30-JAN-1998 JP 1998532533
             PR   31-JAN-1997 EP   97101531.8
             PI   KARL HERMANN SCHLINGENSIEPEN,WOLFGANG BRYSCH
             PC   C12N15/11,C07H21/04,A61K31/70
             CC   An antisense oligonucleotide preparation method FH   Key
                  Location/Qualifiers
             FT   source          1. .16
             FT                   /organism='Unknown'.
 FEATURES             Location/Qualifiers
      source          1. .16
                      /organism="unidentified"
                      /mol_type="genomic DNA"
                      /db_xref="taxon:32644"
 BASE COUNT       3 a      6 c      1 g      6 t
 ORIGIN

  BD066334  Length: 16  October 16, 2003 08:44  Type: N  Check: 225  ..
 bd066334

   Query Match              0.3%;  Score 14.4;  DB 1;  Length 16;
   Best Local Similarity   93.8%;  Pred. No. 10;
   Matches   15;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

 Qy       2314 AGTAATAAGATGGCTG 2329
               || |||||||:||||:
 Db         16 AGGAATAAGATGGCTG 1


 RESULT 16
 ar098809/c
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```
TOIG of: ar098809  check: 2467  from: 1  to: 18

OCUS       AR098809                18 bp    DNA     linear   PAT 14-FEB-2001
EFINITION  Sequence 64 from patent US 6077672.
CCESSION   AR098809
ERSION     AR098809.1  GI:12808575
EYWORDS    .
OURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
EFERENCE   1  (bases 1 to 18)
  AUTHORS   Monia,B.P. and Cowsert,L.M.
  TITLE     Antisense modulation of TRADD expression
  JOURNAL   Patent: US 6077672-A 64 20-JUN-2000;
EATURES             Location/Qualifiers
     source         1. .18
                    /organism="unknown"
ASE COUNT       1 a      6 c      6 g      5 t
RIGIN

 AR098809  Length: 18  October 16, 2003 08:44  Type: N  Check: 2467  ..
098809

Query Match             0.3%;  Score 14.4;  DB 1;  Length 18;
Best Local Similarity   93.8%;  Pred. No. 9.1;
Matches   15;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

       1348 ACCAGCCAGGCAGAGG 1363
            ||||||| ||||||||
         17 ACCAGCCTGGCAGAGG 2


SULT 17
329281
 TOIG of: ax329281  check: 2334  from: 1  to: 18

LOCUS       AX329281                18 bp    DNA     linear   PAT 08-JAN-2002
DEFINITION  Sequence 17 from Patent WO0194387.
ACCESSION   AX329281
VERSION     AX329281.1  GI:18102296
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Kirchhoff,C. and Ivell,R.
  TITLE     Epididymis-specific proteins with fibronectin type II modules
  JOURNAL   Patent: WO 0194387-A 17 13-DEC 2001;
            IHF INSTITUT FUER HORMON- UND FORTPFLANZUNGSFORSCHUNG GmbH (DE)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="genomic DNA"
                     /db_xref="taxon:32630"
                     /note="CE12-Antisense-Primer"
BASE COUNT       3 a      5 c      5 g      5 t
ORIGIN

 AX329281  Length: 18  October 16, 2003 08:44  Type: N  Check: 2334  ..
329281

Query Match             0.3%;  Score 14.4;  DB 1;  Length 18;
Best Local Similarity   93.8%;  Pred. No. 9.1;
Matches   15;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

       4001 GTAATCGTGTGCCATG 4016
            |||||||| |||||||
          2 GTAATCGTCTGCCATG 17


SULT 18
659630
 TOIG of: ax659630  check: 8469  from: 1  to: 14

;
; LOCUS       AX659630                14 bp    DNA     linear   PAT 03-APR-2003
; DEFINITION  Sequence 24 from Patent WO02103014.
; ACCESSION   AX659630
; VERSION     AX659630.1  GI:29161812
; KEYWORDS    .
; SOURCE      synthetic construct
;   ORGANISM  synthetic construct
;             artificial sequences.
; REFERENCE   1
;   AUTHORS   Al Mahmood,S.
;   TITLE     Antisense oligonucleotides which can inhibit the formation of
;             capillary tubes by endothelial cells
;   JOURNAL   Patent: WO 02103014-A 24 27-DEC-2002;
;             Al Mahmood, Salman (FR)
; FEATURES             Location/Qualifiers
;      source          1. .14
;                      /organism="synthetic construct"
;                      /mol_type="genomic DNA"
;                      /db_xref="taxon:32630"
;                      /note="Oligonucleotide anti-sens"
; BASE COUNT         0 a      0 c      2 g     12 t
; ORIGIN
;
;  AX659630  Length: 14  October 16, 2003 08:44  Type: N  Check: 8469  ..
ax659630

  Query Match             0.3%;  Score 14;  DB 1;  Length 14;
  Best Local Similarity   100.0%;  Pred. No. 14;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        4504 TTTTTTTTTTTTGG 4517
               ||||||| |||  |
Db           1 TTTTTTTTTTTTGG 14


RESULT 19
ax659631/c
;  TOIG of: ax659631  check: 8391  from: 1  to: 14
;
; LOCUS       AX659631                14 bp    DNA     linear   PAT 03-APR-2003
; DEFINITION  Sequence 25 from Patent WO02103014.
; ACCESSION   AX659631
; VERSION     AX659631.1  GI:29161813
; KEYWORDS    .
; SOURCE      synthetic construct
;   ORGANISM  synthetic construct
;             artificial sequences.
; REFERENCE   1
;   AUTHORS   Al-Mahmood,S.
;   TITLE     Antisense oligonucleotides which can inhibit the formation of
;             capillary tubes by endothelial cells
;   JOURNAL   Patent: WO 02103014-A 25 27-DEC-2002;
;             Al-Mahmood, Salman (FR)
; FEATURES             Location/Qualifiers
;      source          1. .14
;                      /organism="synthetic construct"
;                      /mol_type="genomic DNA"
;                      /db_xref="taxon:32630"
;                      /note="Oligonucleotide anti-sens."
; BASE COUNT         1 a      0 c      1 g     12 t
; ORIGIN
;
;  AX659631  Length: 14  October 16, 2003 08:44  Type: N  Check: 8391  ..
ax659631

  Query Match             0.3%;  Score 14;  DB 1;  Length 14;
  Best Local Similarity   100.0%;  Pred. No. 14;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        5205 CTAAAAAAAAAAAA 5218
               ||||||||||||||
Db          14 CTAAAAAAAAAAAA 1
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```
SULT 20
0279
 TOIG of: a90279  check: 308  from: 1  to: 17

LOCUS       A90279                   17 bp    DNA     linear   PAT 22-JAN-2000
DEFINITION  Sequence 460 from Patent EP0856579.
ACCESSION   A90279
VERSION     A90279.1  GI:6738793
KEYWORDS    .
SOURCE      unidentified
  ORGANISM  unidentified
            unclassified.
REFERENCE   1  (bases 1 to 17)
  AUTHORS   Brysch,W.D. and Schlingensiepen,K.D.
  TITLE     An antisense oligonucleotide preparation method
  JOURNAL   Patent: EP 0856579-A 460 05-AUG-1998;
            BIOGNOSTIK GES (DE)
FEATURES             Location/Qualifiers
     source          1. .17
                     /organism="unidentified"
                     /mol_type="genomic DNA"
                     /db_xref="taxon:32644"
BASE COUNT       10 a       2 c       1 g       4 t
ORIGIN

  A90279  Length: 17  October 16, 2003 08:44  Type: N  Check: 308  ..
0279

Query Match             0.3%;  Score 13.8;  DB 1;  Length 17;
Best Local Similarity   88.2%;  Pred. No. 13;
Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

       3599 GTCTGGAAAAAAACAAA 3615
            ||||  ||||||||||
          1 GTCTTTAAAAAAACAAA 17



SULT 21
065825
 TOIG of: bd065825  check: 308  from: 1  to: 17

LOCUS       BD065825                 17 bp    DNA     linear   PAT 27-AUG-2002
DEFINITION  An antisense oligonucleotide preparation method.
ACCESSION   BD065825
VERSION     BD065825.1  GI:22611428
KEYWORDS    JP 2001511000-A/460.
SOURCE      unidentified
  ORGANISM  unidentified
            unclassified.
REFERENCE   1  (bases 1 to 17)
  AUTHORS   Schlingensiepen,K.H. and Brysch,W.
  TITLE     An antisense oligonucleotide preparation method
  JOURNAL   Patent: JP 2001511000-A 460 07-AUG-2001;
            BIOGNOSTIK GESELLSCHAFT FUR BIOMOLEKULARE DIAGNOSTIK MBH
COMMENT     OS   Unknown
            PN   JP 2001511000-A/460
            PD   07-AUG-2001
            PF   30-JAN-1998 JP 1998532533
            PR   31-JAN-1997 EP   97101531.8
            PI   KARL HERMANN SCHLINGENSIEPEN,WOLFGANG BRYSCH
            PC   C12N15/11,C07H21/04,A61K31/70
            CC   An antisense oligonucleotide preparation method FH   Key
                 Location/Qualifiers
            FT   source          1. .17
            FT                   /organism='Unknown'.
FEATURES             Location/Qualifiers
     source          1. .17
                     /organism="unidentified"
                     /mol_type="genomic DNA"
                     /db_xref="taxon:32644"
BASE COUNT       10 a       2 c       1 g       4 t
ORIGIN
;
;  BD065825  Length: 17  October 16, 2003 08:44  Type: N  Check: 308  ..
bd065825

  Query Match             0.3%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 13;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       3599 GTCTGGAAAAAAACAAA 3615
              ||||  ||||||||||
Db          1 GTCTTTAAAAAAACAAA 17


RESULT 22
e03610
;  TOIG of: e03610  check: 1247  from: 1  to: 17
;
; LOCUS       E03610                   17 bp    DNA     linear   PAT 29-SEP-1997
; DEFINITION  DNA primer for cloning of GABA-A receptor alpha subunit.
; ACCESSION   E03610
; VERSION     E03610.1  GI:2171825
; KEYWORDS    JP 1992144683-A/5.
; SOURCE      synthetic construct
;   ORGANISM  synthetic construct
;             artificial sequences.
; REFERENCE   1  (bases 1 to 17)
;   AUTHORS   Watabe,W., Matsumoto,R., Shibui,T. and Nagahari,K.
;   TITLE     PRODUCTION OF N-TERMINAL EXTRACELLULAR SITE PROTEIN OF ION CHANNEL
;             DIRECTLY BINDING TYPE RECEPTOR
;   JOURNAL   Patent: JP 1992144683-A 5 19-MAY-1992;
;             MITSUBISHI KASEI CORP
; COMMENT     OS   Artificial gene
;             OC   Artificial sequence; Genes.
;             PN   JP 1992144683-A/5
;             PD   19-MAY-1992
;             PF   05-OCT 1990 JP 1990267743
;             PI   WATABE WAKAKO, MATSUMOTO RIEKO, SHIBUI TATSURO, NAGAHARI KENJI
;             PC   C12N15/12,C12N15/70,C12P21/02,(C12P21/02,C12R1:19); CC
;             strandedness: Single;
;             CC   topology: Linear;
;             CC   hypothetical: No;
;             CC   anti-sense: No;
;             FH   Key             Location/Qualifiers
;             FH
;             FT   misc_feature    1. .17
;             FT                   /note='primer for cloning of GABA-A receptor
;             FT                   alpha subunit'.
; FEATURES             Location/Qualifiers
;      source          1. .17
;                      /organism="synthetic construct"
;                      /mol_type="genomic DNA"
;                      /db_xref="taxon:32630"
; BASE COUNT        0 a       9 c       2 g       6 t
; ORIGIN
;
;  E03610  Length: 17  October 16, 2003 08:44  Type: N  Check: 1247  ..
e03610

  Query Match             0.3%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 13;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       3185 CTCTCCCTCCCTCTCTC 3201
              ||||  ||||||||||
Db          1 CTCTGGCTCCCTCTCTC 17


RESULT 23
e12897
;  TOIG of: e12897  check: 1628  from: 1  to: 17
;
; LOCUS       E12897                   17 bp    RNA     linear   PAT 27-APR-1998
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EFINITION  Modified antisense oligonucleotide.
CCESSION   E12897
ERSION     E12897.1  GI:5708629
EYWORDS    JP 1997095495-A/1.
OURCE      unidentified
 ORGANISM  unidentified
           unclassified.
EFERENCE   1  (bases 1 to 17)
 AUTHORS   Matsuda,A. and Ono,A.
 TITLE     ANTISENSE OLIGONUCLEOTIDE, NUCLEOSIDE AND INTERMEDIATE FOR
           PRODUCING THE SAME, ITS SYNTHESIS, OLIGONUCLECTIDE SYNTHESIZING
           UNIT AND ITS
 JOURNAL   Patent: JP 1997095495-A 1 08-APR-1997;
           KANSAI SHIN GIJUTSU KENKYUSHO:KK, MATSUDA AKIRA
OMMENT     OS   None
           OC   Artificial sequences.
           PN   JP 1997095495-A/1
           PD   08-APR-1997
           PF   29-SEP-1995 JP 1995277168
           PI   MATSUDA AKIRA, ONO AKIRA
           PC   C07H21/04//A61K31/70,A61K31/70,C12N15/09;
           CC   strandedness: Single;
           CC   topology: Linear;
           FH   Key             Location/Qualifiers
           FH
           FT   source          1. .17
           FT                   /organism='Artificial sequences' FT
           misc_feature    1
           FT
           FT
           /note='5-(N,N-dimethylaminohexyl)carbamoyl 2'-deoxyuridine' FT
           misc_feature    2
           FT                   /note='5-methyl-2'-deoxycytidine' FT
           misc_feature    4
           FT                   /note='5-methyl-2'-deoxycytidine' FT
           misc_feature    6
           FT                   /note='5-methyl-2' deoxycytidine' FT
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           FT
           FT
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           FT                   /note='5-methyl-2' deoxycytidine' FT
           misc_feature    11
           FT
           FT
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           misc_feature    12
           FT                   /note='5-methyl-2' deoxycytidine' FT
           misc_feature    14
           FT                   /note='5-methyl-2'-deoxycytidine' FT
           misc_feature    16
           FT                   /note='5 methyl-2'-deoxycytidine' FT
           misc_feature    17
           FT                   /note='5 aminohexylcarbamoyl-2'-deoxyuridine'.
FEATURES             Location/Qualifiers
     source          1. .17
                     /organism="unidentified"
                     /mol_type="genomic RNA"
                     /db_xref="taxon:32644"
BASE COUNT       0 a      8 c      0 g      9 t
ORIGIN

  E12897  Length: 17  October 16, 2003 08:44  Type: N  Check: 1628  ..
2897

Query Match              0.3%;  Score 13.8;  DB 1;  Length 17;
Best Local Similarity   88.2%;  Pred. No. 13;
Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

      3182 TCTCTCTCCCTCCCTCT 3198
```

```
                ||||:|'| |'  ||.:
Db          1 TCTCTCTCTCTCTCTCT 17


RESULT 24
ax659630/c
;  TOIG of: ax659630  check: 8469  from: 1  to: 14
;
; LOCUS       AX659630                 14 bp    DNA     linear   PAT 03-APR-2003
; DEFINITION  Sequence 24 from Patent WO02103014.
; ACCESSION   AX659630
; VERSION     AX659630.1  GI:29161812
; KEYWORDS    .
; SOURCE      synthetic construct
;   ORGANISM  synthetic construct
;             artificial sequences.
; REFERENCE   1
;   AUTHORS   Al-Mahmood,S.
;   TITLE     Antisense oligonucleotides which can inhibit the formation of
;             capillary tubes by endothelial cells
;   JOURNAL   Patent: WO 02103014 A 24 27-DEC-2002;
;             Al-Mahmood, Salman (FR)
; FEATURES             Location/Qualifiers
;      source          1. .14
;                      /organism="synthetic construct"
;                      /mol_type="genomic DNA"
;                      /db_xref="taxon:32630"
;                      /note="Oligonucleotide anti sens"
; BASE COUNT        3 a      0 c      2 g     12 t
; ORIGIN
;
;  AX659630  Length: 14  October 16, 2003 08:44  Type: N  Check: 8469  ..
ax659630

  Query Match              0.2%;  Score 12.4;  DB 1;  Length 14;
  Best Local Similarity   92.9%;  Pred. No. 26;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       5205 CTAAAAAAAAAAAA 5218
              | |:|||||||||
Db         14 CCAAAAAAAAAAAA 1


RESULT 25
ax659631
;  TOIG of: ax659631  check: 8391  from: 1  to: 14
;
; LOCUS       AX659631                 14 bp    DNA     linear   PAT 03-APR-2003
; DEFINITION  Sequence 25 from Patent WO02103014.
; ACCESSION   AX659631
; VERSION     AX659631.1  GI:29161813
; KEYWORDS    .
; SOURCE      synthetic construct
;   ORGANISM  synthetic construct
;             artificial sequences.
; REFERENCE   1
;   AUTHORS   Al-Mahmood,S.
;   TITLE     Antisense oligonucleotides which can inhibit the formation of
;             capillary tubes by endothelial cells
;   JOURNAL   Patent: WO 02103014-A 25 27-DEC-2002;
;             Al-Mahmood, Salman (FR)
; FEATURES             Location/Qualifiers
;      source          1. .14
;                      /organism="synthetic construct"
;                      /mol_type="genomic DNA"
;                      /db_xref="taxon:32630"
;                      /note="Oligonucleotide anti-sens."
; BASE COUNT        1 a      0 c      1 g     12 t
; ORIGIN
;
;  AX659631  Length: 14  October 16, 2003 08:44  Type: N  Check: 8391  ..
ax659631
```

uery Match 0.2%; Score 12.4; DB 1; Length 14;
est Local Similarity 92.9%; Pred. No. 26;
atches 13; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

```
4503 TTTTTTTTTTTTG 4516
     ||||||||||||| |
   1 TTTTTTTTTTTAG 14
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time : 1 secs

GenCore version 5.1.6

nucleic - nucleic search, using sw model

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(without alignments)
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arched: 219 seqs, 3936 residues

tal number of hits satisfying chosen parameters: 436

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Maximum Match 100%
Listing first 290 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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2	22	0.4	22	1	abl57449	TOIG of: abl5744
3	21	0.4	21	1	abl57451	TOIG of: abl5745
4	21	0.4	21	1	abz77051	TOIG of: abz7705
5	20	0.4	20	1	abt07496	TOIG of: abt0749
6	20	0.4	20	1	abz77055	TOIG of: abz7705
7	20	0.4	20	1	abz77056	TOIG of: abz7705
8	20	0.4	20	1	abz77057	TOIG of: abz7705
9	20	0.4	20	1	abz77058	TOIG of: abz7705
10	20	0.4	20	1	abz77059	TOIG of: abz7705
11	20	0.4	20	1	abz77060	TOIG of: abz7706
12	20	0.4	20	1	abz77061	TOIG of: abz7706
13	20	0.4	20	1	abz77062	TOIG of: abz7706
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15	20	0.4	20	1	abz77064	TOIG of: abz7706
16	20	0.4	20	1	abz77065	TOIG of: abz7706
17	20	0.4	20	1	abz77066	TOIG of: abz7706
18	20	0.4	20	1	abz77067	TOIG of: abz7706
19	20	0.4	20	1	abz77068	TOIG of: abz7706
20	20	0.4	20	1	abz77069	TOIG of: abz7706
21	20	0.4	20	1	abz77070	TOIG of: abz7707
22	20	0.4	20	1	abz77071	TOIG of: abz7707
23	20	0.4	20	1	abz77072	TOIG of: abz7707
24	20	0.4	20	1	abz77073	TOIG of: abz7707
25	20	0.4	20	1	abz77074	TOIG of: abz7707
26	20	0.4	20	1	abz77075	TOIG of: abz7707
27	20	0.4	20	1	abz77076	TOIG of: abz7707
28	20	0.4	20	1	abz77077	TOIG of: abz7707
29	20	0.4	20	1	abz77078	TOIG of: abz7707
30	20	0.4	20	1	abz77079	TOIG of: abz7707
31	20	0.4	20	1	abz77080	TOIG of: abz7708
32	20	0.4	20	1	abz77081	TOIG of: abz7708
33	20	0.4	20	1	abz77082	TOIG of: abz7708
c 34	20	0.4	20	1	abz77083	TOIG of: abz7708
c 35	20	0.4	20	1	abz77084	TOIG of: abz7708
c 36	20	0.4	20	1	abz77085	TOIG of: abz7708
c 37	20	0.4	20	1	abz77086	TOIG of: abz7708
c 38	20	0.4	20	1	abz77087	TOIG of: abz7708
c 39	20	0.4	20	1	abz77088	TOIG of: abz7708
c 40	20	0.4	20	1	abz77089	TOIG of: abz7708
c 41	20	0.4	20	1	abz77090	TOIG of: abz7709
c 42	20	0.4	20	1	abz77091	TOIG of: abz7709
c 43	20	0.4	20	1	abz77092	TOIG of: abz7709
c 44	20	0.4	20	1	abz77093	TOIG of: abz7709
c 45	20	0.4	20	1	abz77094	TOIG of: abz7709
c 46	20	0.4	20	1	abz77095	TOIG of: abz7709
c 47	20	0.4	20	1	abz77096	TOIG of: abz7709
c 48	20	0.4	20	1	abz77097	TOIG of: abz7709
c 49	20	0.4	20	1	abz77098	TOIG of: abz7709
c 50	20	0.4	20	1	abz77099	TOIG of: abz7709
c 51	20	0.4	20	1	abz77100	TOIG of: abz7710
c 52	20	0.4	20	1	abz77101	TOIG of: abz7710
c 53	20	0.4	20	1	abz77102	TOIG of: abz7710
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c 71	20	0.4	20	1	abz77120	TOIG of: abz7712
c 72	20	0.4	20	1	abz77121	TOIG of: abz7712
c 73	20	0.4	20	1	abz77122	TOIG of: abz7712
c 74	20	0.4	20	1	abz77123	TOIG of: abz7712
c 75	20	0.4	20	1	abz77124	TOIG of: abz7712
c 76	20	0.4	20	1	abz77125	TOIG of: abz7712
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78	17.4	0.3	21	1	aaf19468	TOIG of: aaf1946
79	17.4	0.3	21	1	aat76098	TOIG of: aat7609
80	17.4	0.3	21	1	aax53903	TOIG of: aax5390
81	17	0.3	17	1	aaa25448	TOIG of: aaa2544
82	17	0.3	17	1	aax82721	TOIG of: aax8272
83	17	0.3	17	1	abz77049	TOIG of: abz7704
84	17	0.3	20	1	aav15104	TOIG of: aav1510
c 85	17	0.3	20	1	aax15599	TOIG of: aax1559
86	17	0.3	20	1	aax15764	TOIG of: aax1576
87	16.8	0.3	20	1	abt34199	TOIG of: abt3419
88	16.8	0.3	20	1	abz59435	TOIG of: abz5943
c 89	16.8	0.3	20	1	acc44056	TOIG of: acc4405
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c 102	16	0.3	20	1	aav07752	TOIG of: aav0775
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c 106	15.4	0.3	17	1	abt35107	TOIG of: abt3510

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163	15	0.3	15	1	aah49243	TOIG of: aah4924
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165	15	0.3	15	1	aaq79184	TOIG of: aaq7918
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167	15	0.3	15	1	aaq79185	TOIG of: aaq7918
168	15	0.3	15	1	aaq79185	TOIG of: aaq7918
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177	15	0.3	16	1	aba97402	TOIG of: aba9740
178	15	0.3	16	1	abk87931	TOIG of: abk8793
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c 185	15	0.3	17	1	aax82721	TOIG of: aax8272
c 186	15	0.3	17	1	aax82722	TOIG of: aax8272
c 187	15	0.3	17	1	abk19050	TOIG of: abk1905
188	15	0.3	18	1	aad03565	TOIG of: aad0356
c 189	15	0.3	18	1	aad03565	TOIG of: aad0356
190	15	0.3	18	1	aaf82472	TOIG of: aaf8247
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192	15	0.3	18	1	aav21970	TOIG of: aav2197
c 193	15	0.3	18	1	aav21970	TOIG of: aav2197
194	15	0.3	18	1	aaz87161	TOIG of: aaz8716
c 195	15	0.3	18	1	aaz87161	TOIG of: aaz8716
196	15	0.3	18	1	aaz87162	TOIG of: aaz8716
c 197	15	0.3	18	1	aaz87162	TOIG of: aaz8716
198	15	0.3	18	1	aaz87166	TOIG of: aaz8716
c 199	15	0.3	18	1	aaz87166	TOIG of: aaz8716
200	15	0.3	18	1	aaz87167	TOIG of: aaz8716
c 201	15	0.3	18	1	aaz87167	TOIG of: aaz8716
202	14.8	0.3	18	1	aah63154	TOIG of: aah6315
c 203	14.8	0.3	18	1	aai72706	TOIG of: aai7270
c 204	14.8	0.3	18	1	aaq37744	TOIG of: aaq3774
205	14.8	0.3	18	1	aav21969	TOIG of: aav2196
c 206	14.8	0.3	18	1	aav30103	TOIG of: aav3010
c 207	14.4	0.3	16	1	aaq83416	TOIG of: aaq8341
208	14.4	0.3	17	1	aaa25445	TOIG of: aaa2544
c 209	14.4	0.3	17	1	aaa25453	TOIG of: aaa2545
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213	14.4	0.3	18	1	aaa06980	TOIG of: aaa0698
214	14.4	0.3	18	1	aad51440	TOIG of: aad5144
c 215	14.4	0.3	18	1	aaz93494	TOIG of: aaz9349
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c 218	14	0.3	14	1	aad23152	TOIG of: aad2315
c 219	14	0.3	14	1	aat36896	TOIG of: aat3689
220	14	0.3	14	1	aav12217	TOIG of: aav1221
c 221	14	0.3	14	1	aav12221	TOIG of: aav1222
c 222	14	0.3	14	1	aax19468	TOIG of: aax1946
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c 224	14	0.3	15	1	aaf16603	TOIG of: aaf1660
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231	14	0.3	17	1	aaf02904	TOIG of: aaf0290
232	14	0.3	17	1	aal51321	TOIG of: aal5132
c 233	14	0.3	17	1	abk17648	TOIG of: abk1764
234	14	0.3	17	1	abk18167	TOIG of: abk1816
c 235	14	0.3	17	1	abk18367	TOIG of: abk1836
c 236	14	0.3	17	1	abt35361	TOIG of: abt3536
c 237	14	0.3	17	1	abt37683	TOIG of: abt3768
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c 242	13.8	0.3	17	1	aaa25846	TOIG of: aaa2584
243	13.8	0.3	17	1	aaa25876	TOIG of: aaa2587
c 244	13.8	0.3	17	1	aaf02337	TOIG of: aaf0233
c 245	13.8	0.3	17	1	aaf04402	TOIG of: aaf0440
246	13.8	0.3	17	1	aaf04598	TOIG of: aaf0459
c 247	13.8	0.3	17	1	aaf04850	TOIG of: aaf0485
248	13.8	0.3	17	1	aaf05549	TOIG of: aaf0554
249	13.8	0.3	17	1	aaf06311	TOIG of: aaf0631
c 250	13.8	0.3	17	1	aaf06315	TOIG of: aaf0631
c 251	13.8	0.3	17	1	aah94753	TOIG of: aah9475
252	13.8	0.3	17	1	aah95067	TOIG of: aah9506

53	13.8	0.3	17	1	aah95627	TOIG of: aah9562
54	13.8	0.3	17	1	aav48871	TOIG of: aav4887
55	13.8	0.3	17	1	aax63864	TOIG of: aax6386
56	13.8	0.3	17	1	aba77485	TOIG of: aba7748
57	13.8	0.3	17	1	aba77486	TOIG of: aba7748
58	13.8	0.3	17	1	abk00060	TOIG of: abk0006
59	13.8	0.3	17	1	abk00237	TOIG of: abk0023
60	13.8	0.3	17	1	abk00772	TOIG of: abk0077
61	13.8	0.3	17	1	abk02556	TOIG of: abk0255
62	13.8	0.3	17	1	abk02894	TOIG of: abk0289
63	13.8	0.3	17	1	abk03067	TOIG of: abk0306
264	13.8	0.3	17	1	abk03423	TOIG of: abk0342
65	13.8	0.3	17	1	abk03642	TOIG of: abk0364
266	13.8	0.3	17	1	abk17880	TOIG of: abk1788
267	13.8	0.3	17	1	abk18022	TOIG of: abk1802
268	13.8	0.3	17	1	abk19385	TOIG of: abk1938
269	13.8	0.3	17	1	abt34584	TOIG of: abt3458
270	13.8	0.3	17	1	abt35737	TOIG of: abt3573
271	13.8	0.3	17	1	abt37340	TOIG of: abt3734
272	13.8	0.3	17	1	abt38630	TOIG of: abt3863
273	13.8	0.3	17	1	abt38835	TOIG of: abt3883
274	13.8	0.3	17	1	abt40072	TOIG of: abt4007
275	13.8	0.3	17	1	aca06562	TOIG of: aca0656
276	13.8	0.3	20	1	abz77072	TOIG of: abz7707
277	13.6	0.3	20	1	abt07496	TOIG of: abt0749
278	13.4	0.3	15	1	aaf49042	TOIG of: aaf4904
279	13	0.2	17	1	aaa25446	TOIG of: aaa2544
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281	12.8	0.2	17	1	abt38630	TOIG of: abt3863
282	12.4	0.2	14	1	aad23152	TOIG of: aad2315
283	12.4	0.2	14	1	aat36896	TOIG of: aat3689
284	12.4	0.2	14	1	aav12217	TOIG of: aav1221
285	12.4	0.2	14	1	aav12221	TOIG of: aav1222
286	12.4	0.2	14	1	aax19468	TOIG of: aax1946
287	12.4	0.2	14	1	aax19469	TOIG of: aax1946
288	12.4	0.2	21	1	abz77051	TOIG of: abz7705
289	12.2	0.2	17	1	aaa25445	TOIG of: aaa2544
290	12.2	0.2	17	1	abk03642	TOIG of: abk0364

ALIGNMENTS

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ULT 1
77050/c
TOIG of: abz77050  check: 7407  from: 1  to: 27

D   ABZ77050 standard; DNA; 27 BP.
X
C   ABZ77050;
X
T   07-MAY-2003  (first entry)
X
E   Human stearoyl-CoA desaturase reverse PCR primer SEQ ID NO:5.
X
W   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
W   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
W   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
W   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
W   atherosclerosis; cardiovascular disease; inflammation; chromosome 10;
W   enzyme; PCR primer; ss.
X
S   Homo sapiens.
X
N   WO2003012031-A2.
X
D   13-FEB-2003.
X
F   16-JUL-2002; 2002WO-US22676.
X
R   30-JUL-2001; 2001US-0918187.
X
A   (ISIS-) ISIS PHARM INC.
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; XX
; PI   Crooke RM,  Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Example 13; Page 92; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a PCR primer for human
; CC   stearoyl-CoA desaturase, which is used in an example from the present
; CC   invention.
; XX
; SQ   Sequence 27 BP; 7 A; 4 C; 9 G; 7 T; 0 other;
;
;  ABZ77050  Length: 27  October 16, 2003 08:46  Type: N  Check: 7407  ..
abz77050

  Query Match             0.5%;  Score 27;  DB 1;  Length 27;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   27;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         254 CAGGACGATATCTCTAGCTCCTATACC 280
               ||||||||||:|||||||||||||||||
Db          27 CAGGACGATATCTCTAGCTCCTATACC 1


RESULT 2
abl57449/c
;  TOIG of: abl57449  check: 7958  from: 1  to: 22
;
; ID   ABL57449 standard; DNA; 22 BP.
; XX
; AC   ABL57449;
; XX
; DT   22-AUG-2002  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase gene antisense PCR primer.
; XX
; KW   Stearoyl-CoA desaturase; SCD; enzyme; human; promoter; virucide;
; KW   dermatological; cytostatic; immunosuppressive; antiallergic;
; KW   antiarthritic; antiinflammatory; cardiovascular; antianaemic;
; KW   gene therapy; PCR; primer; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO200236780-A2.
; XX
; PD   10-MAY-2002.
; XX
; PF   31-OCT-2001; 2001WO-US45199.
; XX
; PR   31-OCT-2000; 2000US-244508P.
```

30-OCT-2001; 2001US-0244508.

(JOHJ) JOHNSON & JOHNSON CONSUMER CO INC.

Prouty SM, Zhang L, Stenn KS;

WPI; 2002-471502/50.

New human stearoyl-CoA desaturase gene promoter, useful for treating a skin diseases (e.g. acne, psoriasis and rosacea), tumor diseases, leukemias, autoimmune diseases, allergies, arthritis, inflammations, or organ rejections -

Example 2; Page 14; 53pp; English.

The present sequence is that of a PCR primer that is complementary to nucleotides -166 to -145 of the human stearoyl-CoA desaturase (SCD) gene (see ABL57445) on chromosome 10. The primer was used as an antisense primer in the preparation of SCD-luciferase reporter constructs that were used in the functional analysis of the SCD promoter. The sense primers are given in ABL57446 48. The present invention provides the human SCD gene promoter and its functional moieties, fragments and variants, nucleic acid constructs and vectors that contain such sequences, and their uses. The promoter may be used for selective transgene expression in various tissues such as the skin for treating a skin disease (e.g. acne, psoriasis and rosacea), tumours, leukaemia, autoimmune diseases, allergy, arthritis, inflammation, organ rejection, graft versus host reaction, diseases of the blood coagulation system, cardiovascular diseases, anaemia, infections and damage to the central nervous system.

(Sequence 22 BP; 1 A; 8 C; 10 G; 3 T; 0 other;

ABL57449 Length: 22 October 16, 2003 08:46 Type: N Check: 7958 ..
57449

Query Match 0.4%; Score 22; DB 1; Length 22;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

70 CGGGGACCTCCACGCACCGCGG 91
22 CGGGGACCTCCACGCACCGCGG 1

ULT 3
57451/c
TOIG of: abl57451 check: 6331 from: 1 to: 21

D ABL57451 standard; DNA; 21 BP.
X
C ABL57451;
X
T 22-AUG-2002 (first entry)
X
E Human stearoyl-CoA desaturase gene antisense PCR primer.
X
W Stearoyl-CoA desaturase; SCD; enzyme; human, promoter; virucide;
W dermatological; cytostatic; immunosuppressive; antiallergic;
W antiarthritic; antiinflammatory; cardiovascular; antianaemic;
W gene therapy; PCR; primer; ss.
X
S Homo sapiens.
X
N WO200236780-A2.
X
D 10-MAY-2002.
X
F 31-OCT-2001; 2001WO-US45199.
X
PR 31-OCT-2000; 2000US-244508P.
PR 30-OCT-2001; 2001US-0244508.

; XX
; PA (JOHJ) JOHNSON & JOHNSON CONSUMER CO INC.
; XX
; PI Prouty SM, Zhang L, Stenn KS;
; XX
; DR WPI; 2002-471502/50.
; XX
; PT New human stearoyl-CoA desaturase gene promoter, useful for treating a
; PT skin diseases (e.g. acne, psoriasis and rosacea), tumor diseases,
; PT leukemias, autoimmune diseases, allergies, arthritis, inflammations, or
; PT organ rejections -
; XX
; PS Example 3; Page 14; 53pp; English.
; XX
; CC The present sequence is that of an antisense PCR primer corresponding
; CC to nucleotides +7 to +27 of the human stearoyl-CoA desaturase
; CC (SCD) gene (see ABL57445). It was used with the sense primer given
; CC in ABL57450 for the PCR amplification of an SCD gene fragment
; CC (nucleotides -275 to +27) which was used in an RNase protection
; CC assay to find the SCD transcription initiation site. The present
; CC invention provides the human SCD gene promoter and its functional
; CC moieties, fragments and variants, nucleic acid constructs and
; CC vectors that contain such sequences, and their uses. The promoter
; CC may be used for selective transgene expression in various tissues
; CC such as the skin for treating a skin disease (e.g. acne, psoriasis
; CC and rosacea), tumours, leukaemia, autoimmune diseases, allergy,
; CC arthritis, inflammation, organ rejection, graft versus host
; CC reaction, diseases of the blood coagulation system, cardiovascular
; CC diseases, anaemia, infections and damage to the central nervous
; CC system.
; XX
; SQ Sequence 21 BP; 4 A; 6 C; 7 G; 4 T; 0 other;
;
; ABL57451 Length: 21 October 16, 2003 08:46 Type: N Check: 6331 ..
abl57451

Query Match 0.4%; Score 21; DB 1; Length 21;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 21; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 242 GCCCACTTGCTGCAGGACGAT 262
Db 21 GCCCACTTGCTGCAGGACGAT 1

RESULT 4
abz77051
; TOIG of: abz77051 check: 6391 from: 1 to: 21
;
; ID ABZ77051 standard; DNA; 21 BP.
; XX
; AC ABZ77051;
; XX
; DT 07-MAY-2003 (first entry)
; XX
; DE Human stearoyl-CoA desaturase probe SEQ ID NO:6.
; XX
; KW Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW 2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW atherosclerosis; cardiovascular disease; inflammation; chromosome 10;
; KW enzyme; probe; ss.
; XX
; OS Homo sapiens.
; XX
; PN WO2003012031-A2.
; XX
; PD 13-FEB-2003.
; XX
; PF 16-JUL-2002; 2002WO-US22676.
; XX
; PR 30-JUL-2001; 2001US-0918187.

```
X
A   (ISIS-) ISIS PHARM INC.
X
I   Crooke RM,  Graham MJ;
X
R   WPI; 2003-248160/24.
X
T   New antisense oligonucleotides targeted to nucleic acids encoding human
T   stearoyl-CoA desaturase, useful for treating diseases associated with
T   the desaturase, e.g. atherosclerosis, and in diagnostic and research
T   applications  -
X
S   Example 13; Page 92; 117pp; English.
X
C   The present invention describes a compound (I) that is 8-50 nucleobases
C   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
C   desaturase, and which specifically hybridises with and inhibits the
C   expression of human stearoyl-CoA desaturase, or which specifically
C   hybridises with at least an 8-nucleobase portion of an active site on a
C   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
C   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
C   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
C   activities, and can be used in antisense therapy. The antisense compounds
C   (I) can be used for modulating the expression of human stearoyl-CoA
C   desaturase and for treating diseases or conditions associated with
C   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
C   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
C   The antisense compounds (I) can also be used for diagnostics,
C   therapeutics and prophylaxis, e.g. to prevent or delay infection,
C   inflammation or tumour formation, as research reagents and kits, and in
C   distinguishing between functions of various members of a biological
C   pathway. The present sequence represents a probe for human stearoyl-CoA
C   desaturase, which is used in an example from the present invention.
XX
SQ  Sequence 21 BP; 4 A; 9 C; 5 G; 3 T; 0 other;

 ABZ77051  Length: 21  October 16, 2003 08:46  Type: N  Check: 6391  ..
z77051

Query Match             0.4%;  Score 21;  DB 1;  Length 21;
Best Local Similarity   100.0%;  Pred. No. 0;
Matches   21;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

        231 CCAAGATGCCGGCCCACTTGC 251
            |||||||||||||||||||||
          1 CCAAGATGCCGGCCCACTTGC 21


SULT 5
t07496/c
 TOIG of: abt07496  check: 6320  from: 1  to: 20

ID  ABT07496 standard; DNA; 20 BP.
XX
AC  ABT07496;
XX
DT  14-NOV-2002  (first entry)
XX
DE  Rat protein phosphatase 2 oligo inhibitor SEQ ID No 110.
XX
KW  Cytostatic; antidiabetic; antisense therapy; aberrant insulin regulation;
KW  protein phosphatase 2 catalytic beta subunit; antisense compound; cancer;
KW  hyperproliferative disorder; diabetes; inflammation; tumour; rat; ds.
XX
OS  Rattus norvegicus.
XX
PN  WO200264737-A2.
XX
PD  22-AUG-2002.
XX
PF  31-JAN-2002; 2002WO-US02805.
XX
PR  09-FEB-2001; 2001US-0780045.

; XX
; PA  (ISIS-) ISIS PHARM INC.
; XX
; PI  Monia BP,  Wyatt JR;
; XX
; DR  WPI; 2002-657588/70.
; XX
; PT  New antisense oligonucleotides targeted to nucleic acid encoding
; PT  Protein Phosphatase 2 catalytic subunit beta, useful for treating
; PT  diseases related to Protein Phosphatase 2 catalytic subunit beta
; PT  expression, such as cancer  -
; XX
; PS  Example 16; Page 98; 137pp; English.
; XX
; CC  The invention relates to a novel compound 8-50 nucleotides in length
; CC  targeted to a nucleic acid molecule encoding a protein phosphatase 2
; CC  catalytic beta subunit, where the compound specifically hybridises with
; CC  and inhibits the expression of protein phosphatase 2 catalytic beta
; CC  subunits, or specifically hybridises with at least an 8-nucleotide
; CC  portion of an active site on a nucleic acid molecule encoding a protein
; CC  phosphatase 2 catalytic beta subunit. The antisense compounds are useful
; CC  for modulating the expression of protein phosphatase 2 catalytic beta
; CC  subunits and for treating diseases or conditions associated with
; CC  expression of protein phosphatase 2 catalytic beta subunits, e.g.
; CC  aberrant insulin regulation or diabetes or a hyperproliferative disorder,
; CC  particularly cancer. The antisense compounds are also useful for
; CC  diagnostics, therapeutics, prophylaxis, e.g. to prevent or delay
; CC  infection, inflammation or tumour formation, as research reagents and
; CC  kits, and in distinguishing between functions of various members of a
; CC  biological pathway. This polynucleotide sequence represents an
; CC  oligonucleotide inhibitor of rat protein phosphatase 2 catalytic beta
; CC  subunit mRNA levels of the invention.
; CC  NOTE: This oligonucleotide contains phosphorothioate residues and has 2'
; CC  MOE wings with a deoxy gap.
; XX
; SQ  Sequence 20 BP; 7 A; 0 C; 1 G; 12 T; 0 other;
;
;  ABT07496  Length: 20  October 16, 2003 08:46  Type: N  Check: 6320  ..
abt07496

  Query Match             0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2391 AAAATATATATACATATATA 2410
             ||||||||||||||||||||
Db         20 AAAATATATATACATATATA 1


RESULT 6
abz77055/c
;  TOIG of: abz77055  check: 5039  from: 1  to: 20
;
; ID  ABZ77055 standard; DNA; 20 BP.
; XX
; AC  ABZ77055;
; XX
; DT  07-MAY-2003  (first entry)
; XX
; DE  Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:10.
; XX
; KW  Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW  2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW  antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW  abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW  atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS  Homo sapiens.
; OS  Synthetic.
; XX
; FH  Key             Location/Qualifiers
; FT  modified_base   1. .20
; FT                  /*tag=  a
```

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                /mod_base= OTHER
                /note= "phosphorothicate linkages"
modified_base   1. .5
                /*tag=  b
                /mod_base= OTHER
                /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
modified_base   16. .20
                /*tag=  c
                /mod_base= OTHER
                /note= "2'-O-methoxyethyl (2'-MOE) gapmer"

WO2003012031-A2.

13-FEB-2003.

16-JUL-2002; 2002WO-US22676.

30-JUL-2001; 2001US-0918187.

(ISIS-) ISIS PHARM INC.

Crooke RM,  Graham MJ;

WPI; 2003-248160/24.

New antisense oligonucleotides targeted to nucleic acids encoding human
stearoyl-CoA desaturase, useful for treating diseases associated with
the desaturase, e.g. atherosclerosis, and in diagnostic and research
applications -

Claim 3; Page 94; 117pp; English.

The present invention describes a compound (I) that is 8-50 nucleobases
in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
desaturase, and which specifically hybridises with and inhibits the
expression of human stearoyl-CoA desaturase, or which specifically
hybridises with at least an 8-nucleobase portion of an active site on a
nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
activities, and can be used in antisense therapy. The antisense compounds
(I) can be used for modulating the expression of human stearoyl-CoA
desaturase and for treating diseases or conditions associated with
expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
The antisense compounds (I) can also be used for diagnostics,
therapeutics and prophylaxis, e.g. to prevent or delay infection,
inflammation or tumour formation, as research reagents and kits, and in
distinguishing between functions of various members of a biological
pathway. The present sequence represents a human stearoyl-CoA desaturase
inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
given in an example from the present invention.

Sequence 20 BP; 2 A; 8 C; 4 G; 6 T; 0 other;

ABZ77055  Length: 20  October 16, 2003 08:46  Type: N  Check: 5039  ..
77055

uery Match              0.4%;  Score 20;  DB 1;  Length 20;
est Local Similarity   100.0%;  Pred. No. 0;
latches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

          9 GGGCTGAGGAAATACCGGAC 28
            ||||||||||||||||||||
         20 GGGCTGAGGAAATACCGGAC 1


SULT 7
:77056/c
TOIG of: abz77056  check: 4989  from: 1  to: 20

ID   ABZ77056 standard; DNA; 20 BP.
XX
```

```
; AC   ABZ77056;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:11.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1. .20
; FT                   /*tag= a
; FT                   /mod_base= OTHER
; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag= b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag= c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM,  Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Claim 3; Page 94; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8 nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 1 A; 7 C; 9 G; 3 T; 0 other;
;
```

```
ABZ77056  Length: 20  October 16, 2003 08:46  Type: N  Check: 4989  ..
77056

uery Match              0.4%;  Score 20;  DB 1;  Length 20;
est Local Similarity   100.0%;  Pred. No. 0;
atches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

        72 GGGACCTCCACGCACCGCGG 91
           ||||||||||||||||||||
        20 GGGACCTCCACGCACCGCGG 1


ULT 8
77057/c
TOIG of: abz77057  check: 4583  from: 1  to: 20

D   ABZ77057 standard; DNA; 20 BP.
X
C   ABZ77057;
X
T   07-MAY-2003  (first entry)
X
E   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:12.
X
W   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
W   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
W   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
W   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
W   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
X
S   Homo sapiens.
S   Synthetic.
X
H   Key             Location/Qualifiers
T   modified_base   1. .20
T                   /*tag=  a
T                   /mod_base= OTHER
T                   /note= "phosphorothioate linkages"
T   modified_base   1. .5
T                   /*tag=  b
T                   /mod_base= OTHER
T                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
T   modified_base   16. .20
T                   /*tag=  c
T                   /mod_base= OTHER
T                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
X
N   WO2003012031-A2.
X
D   13-FEB-2003.
X
F   16-JUL-2002; 2002WO-US22676.
X
R   30-JUL-2001; 2001US-0918187.
X
A   (ISIS-) ISIS PHARM INC.
X
I   Crooke RM,  Graham MJ;
X
R   WPI; 2003-248160/24.
X
T   New antisense oligonucleotides targeted to nucleic acids encoding human
T   stearoyl-CoA desaturase, useful for treating diseases associated with
T   the desaturase, e.g. atherosclerosis, and in diagnostic and research
T   applications -
X
S   Claim 3; Page 94; 117pp; English.
X
C   The present invention describes a compound (I) that is 8-50 nucleobases
C   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
C   desaturase, and which specifically hybridises with and inhibits the
C   expression of human stearoyl-CoA desaturase, or which specifically
C   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 2 A; 8 C; 9 G; 2 T; 0 other;
;
;  ABZ77057  Length: 20  October 16, 2003 08:46  Type: N  Check: 4583  ..
abz77057

  Query Match              0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        121 GCGCCGCGGCTCAGCGCGTA 140
              ||||||||||||||||||||
Db         20 GCGCCGCGGCTCAGCGCGTA 1


RESULT 9
abz77058/c
;  TOIG of: abz77058  check: 4670  from: 1  to: 20
;
; ID   ABZ77058 standard; DNA; 20 BP.
; XX
; AC   ABZ77058;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:13.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1. .20
; FT                   /*tag=  a
; FT                   /mod_base= OTHER
; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag=  b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag=  c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
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```
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Crooke RM,  Graham MJ;
XX
DR   WPI; 2003-248160/24.
XX
PT   New antisense oligonucleotides targeted to nucleic acids encoding human
PT   stearoyl-CoA desaturase, useful for treating diseases associated with
PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
PT   applications
XX
PS   Claim 3; Page 94; 117pp; English.
XX
CC   The present invention describes a compound (I) that is 8-50 nucleobases
CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
CC   desaturase, and which specifically hybridises with and inhibits the
CC   expression of human stearoyl-CoA desaturase, or which specifically
CC   hybridises with at least an 8-nucleobase portion of an active site on a
CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
CC   activities, and can be used in antisense therapy. The antisense compounds
CC   (I) can be used for modulating the expression of human stearoyl-CoA
CC   desaturase and for treating diseases or conditions associated with
CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
CC   The antisense compounds (I) can also be used for diagnostics,
CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
CC   inflammation or tumour formation, as research reagents and kits, and in
CC   distinguishing between functions of various members of a biological
CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
CC   given in an example from the present invention.
XX
SQ   Sequence 20 BP; 2 A; 7 C; 8 G; 3 T; 0 other;

 ABZ77058  Length: 20  October 16, 2003 08:46  Type: N  Check: 4670  ..
z77058

Query Match              0.4%;  Score 20;  DB 1;  Length 20;
Best Local Similarity   100.0%;  Pred. No. 0;
Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

        141 CCGGCGGGCTTCGAAACCGC 160
            ||||||||||||||||||||
         20 CCGGCGGGCTTCGAAACCGC 1


SULT 10
z77059/c
 TOIG of: abz77059  check: 4976  from: 1  to: 20

ID   ABZ77059 standard; DNA; 20 BP.
XX
AC   ABZ77059;
XX
DT   07-MAY-2003  (first entry)
XX
DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:14.
XX
KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2' O methoxyethyl;
KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1. .20
FT                    /*tag= a
FT                    /mod_base= OTHER
FT                    /note= "phosphorothioate linkages"
FT   modified_base    1. .5
FT                    /*tag= b
FT                    /mod_base= OTHER
FT                    /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
FT   modified_base    16. .20
FT                    /*tag= c
FT                    /mod_base= OTHER
FT                    /note= "2' O methoxyethyl (2'-MOE) gapmer"
XX
PN   WO2003012031-A2.
XX
PD   13-FEB-2003.
XX
PF   16-JUL-2002; 2002WO-US022670.
XX
PR   30-JUL-2001; 2001US-0918187P.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Crooke RM,  Graham MJ;
XX
DR   WPI; 2003-248160/24.
XX
PT   New antisense oligonucleotides targeted to nucleic acids encoding human
PT   stearoyl-CoA desaturase, useful for treating diseases associated with
PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
PT   applications
XX
PS   Claim 3; Page 94; 117pp; English.
XX
CC   The present invention describes a compound (I) that is 8-50 nucleobases
CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
CC   desaturase, and which specifically hybridises with and inhibits the
CC   expression of human stearoyl-CoA desaturase, or which specifically
CC   hybridises with at least an 8 nucleobase portion of an active site on a
CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
CC   activities, and can be used in antisense therapy. The antisense compounds
CC   (I) can be used for modulating the expression of human stearoyl-CoA
CC   desaturase and for treating diseases or conditions associated with
CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
CC   The antisense compounds (I) can also be used for diagnostics,
CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
CC   inflammation or tumour formation, as research reagents and kits, and in
CC   distinguishing between functions of various members of a biological
CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
CC   given in an example from the present invention.
XX
SQ   Sequence 20 BP; 3 A; 9 C; 3 G; 5 T; 0 other;

 ABZ77059  Length: 20  October 16, 2003 08:46  Type: N  Check: 4976  ..
abz77059

  Query Match              0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         111 AGGGTCCTGCAGAATGGAGG 130
               ||||||||||||||||||||
Db          20 AGGGTCCTGCAGAATGGAGG 1


RESULT 11
abz77060/c
 TOIG of: abz77060  check: 4453  from: 1  to: 20

 ID   ABZ77060 standard; DNA; 20 BP.
XX
 AC   ABZ77060;
```

```
07-MAY-2003  (first entry)

Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:15.

Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.

Homo sapiens.
Synthetic.

Key             Location/Qualifiers
modified_base   1. .20
                /*tag=  a
                /mod_base= OTHER
                /note= "phosphorothioate linkages"
modified_base   1. .5
                /*tag=  b
                /mod_base= OTHER
                /note= "2'-O-methoxyethyl (2' MOE) gapmer"
modified_base   16. .20
                /*tag=  c
                /mod_base= OTHER
                /note= "2'-O-methoxyethyl (2'-MOE) gapmer"

WO2003012031-A2.

13-FEB-2003.

16-JUL-2002; 2002WO-US22676.

30-JUL-2001; 2001US-0918187.

(ISIS-) ISIS PHARM INC.

Crooke RM,  Graham MJ;

WPI; 2003-248160/24.

New antisense oligonucleotides targeted to nucleic acids encoding human
stearoyl-CoA desaturase, useful for treating diseases associated with
the desaturase, e.g. atherosclerosis, and in diagnostic and research
applications  -

Claim 3; Page 94; 117pp; English.

The present invention describes a compound (I) that is 8-50 nucleobases
in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
desaturase, and which specifically hybridises with and inhibits the
expression of human stearoyl-CoA desaturase, or which specifically
hybridises with at least an 8-nucleobase portion of an active site on a
nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
activities, and can be used in antisense therapy. The antisense compounds
(I) can be used for modulating the expression of human stearoyl-CoA
desaturase and for treating diseases or conditions associated with
expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
The antisense compounds (I) can also be used for diagnostics,
therapeutics and prophylaxis, e.g. to prevent or delay infection,
inflammation or tumour formation, as research reagents and kits, and in
distinguishing between functions of various members of a biological
pathway. The present sequence represents a human stearoyl-CoA desaturase
inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
given in an example from the present invention.

Sequence 20 BP; 7 A; 5 C; 5 G; 3 T; 0 other;

 ABZ77060  Length: 20  October 16, 2003 08:46  Type: N  Check: 4453  ..
```

```
abz77060

  Query Match              0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity  100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        471 TGTCTCTGCTACACTTGGGA 490
              ||||||||||||||||||||
Db         20 TGTCTCTGCTACACTTGGGA 1


RESULT 12
abz77061/c
;  TOIG of: abz77061  check: 5115  from: 1  to: 20
;
; ID   ABZ77061 standard; DNA; 20 BP.
; XX
; AC   ABZ77061;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:15.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1. .20
; FT                   /*tag=  a
; FT                   /mod_base= OTHER
; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag=  b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag=  c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM,  Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications  -
; XX
; PS   Claim 3; Page 94; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
```

stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic, cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory activities, and can be used in antisense therapy. The antisense compounds (I) can be used for modulating the expression of human stearoyl-CoA desaturase and for treating diseases or conditions associated with expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or cholesterol metabolism, atherosclerosis, or cardiovascular diseases. The antisense compounds (I) can also be used for diagnostics, therapeutics and prophylaxis, e.g. to prevent or delay infection, inflammation or tumour formation, as research reagents and kits, and in distinguishing between functions of various members of a biological pathway. The present sequence represents a human stearoyl-CoA desaturase inhibiting chimeric phosphorothioate antisense oligonucleotide, which is given in an example from the present invention.

) Sequence 20 BP; 2 A; 7 C; 5 G; 6 T; 0 other;

ABZ77061 Length: 20 October 16, 2003 08:46 Type: N Check: 5115 ..
77061

iery Match 0.4%; Score 20; DB 1; Length 20;
est Local Similarity 100.0%; Pred. No. 0;
atches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
       571 CCTGGGCATAACAGCAGGAG 590
           ||||||||||||||||||||
        20 CCTGGGCATAACAGCAGGAG 1
```

ULT 13
77062/c
TOIG of: abz77062 check: 4781 from: 1 to: 20

```
D   ABZ77062 standard; DNA; 20 BP.
X
C   ABZ77062;
X
T   07-MAY-2003 (first entry)
X
E   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:17.
X
W   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
W   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
W   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
W   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
W   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
X
S   Homo sapiens.
S   Synthetic.
X
H   Key             Location/Qualifiers
T   modified_base   1. .20
T                   /*tag= a
T                   /mod_base= OTHER
T                   /note= "phosphorothioate linkages"
T   modified_base   1. .5
FT                  /*tag= b
FT                  /mod_base= OTHER
FT                  /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
FT  modified_base   16. .20
FT                  /*tag= c
FT                  /mod_base= OTHER
FT                  /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
XX
PN  WO2003012031-A2.
XX
PD  13-FEB-2003.
XX
PF  16-JUL-2002; 2002WO-US22676.
XX
PR  30-JUL-2001; 2001US-09181P7.
XX
PA  (ISIS-) ISIS PHARM INC.
```

```
; XX
; PI  Crooke RM, Graham MJ;
; XX
; DR  WPI; 2003-248160/24.
; XX
; PT  New antisense oligonucleotides targeted to nucleic acids encoding human
; PT  stearoyl-CoA desaturase, useful for treating diseases associated with
; PT  the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT  applications -
; XX
; PS  Claim 3; Page 94; 117pp; English.
; XX
; CC  The present invention describes a compound (I) that is 8-50 nucleobases
; CC  in length targeted to a nucleic acid molecule encoding human stearoyl CoA
; CC  desaturase, and which specifically hybridises with and inhibits the
; CC  expression of human stearoyl-CoA desaturase, or which specifically
; CC  hybridises with at least an 8-nucleobase portion of an active site on a
; CC  nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC  stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC  cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC  activities, and can be used in antisense therapy. The antisense compounds
; CC  (I) can be used for modulating the expression of human stearoyl-CoA
; CC  desaturase and for treating diseases or conditions associated with
; CC  expression of human stearoyl CoA desaturase, e.g. abnormal lipid or
; CC  cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC  The antisense compounds (I) can also be used for diagnostics,
; CC  therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC  inflammation or tumour formation, as research reagents and kits, and in
; CC  distinguishing between functions of various members of a biological
; CC  pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC  inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC  given in an example from the present invention.
; XX
; SQ  Sequence 20 BP; 4 A; 7 C; 4 G; 3 T; 0 other;
;
;  ABZ77062 Length: 20 October 16, 2003 08:46 Type: N Check: 4781 ..
abz77062

  Query Match 0.4%; Score 20; DB 1; Length 20;
  Best Local Similarity 100.0%; Pred. No. 0;
  Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      691 ATGGGCTCGTGACCACCGTG 710
            ||||||||||||||||||||
Db       20 ATGGGCTCGTGACCACCGTG 1
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RESULT 14
abz77063/c
; TOIG of: abz77063 check: 4416 from: 1 to: 20

```
; ID  ABZ77063 standard; DNA; 20 BP.
; XX
; AC  ABZ77063;
; XX
; DT  07-MAY-2003 (first entry)
; XX
; DE  Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:18.
; XX
; KW  Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW  2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW  antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW  abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW  atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS  Homo sapiens.
; OS  Synthetic.
; XX
; FH  Key             Location/Qualifiers
; FT  modified_base   1. .20
; FT                  /*tag= a
; FT                  /mod_base= OTHER
; FT                  /note= "phosphorothioate linkages"
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T   modified_base   1. .5
T                   /*tag= b
T                   /mod_base= OTHER
T                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
T   modified_base   16. .20
T                   /*tag= c
T                   /mod_base= OTHER
T                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
X
N   WO2003012031-A2.
X
D   13-FEB-2003.
X
F   16-JUL-2002; 2002WO-US22676.
X
R   30-JUL-2001; 2001US-0918187.
X
A   (ISIS-) ISIS PHARM INC.
X
I   Crooke RM, Graham MJ;
X
R   WPI; 2003-248160/24.
X
T   New antisense oligonucleotides targeted to nucleic acids encoding human
T   stearoyl-CoA desaturase, useful for treating diseases associated with
T   the desaturase, e.g. atherosclerosis, and in diagnostic and research
T   applications -
X
S   Claim 3; Page 94; 117pp; English.
X
C   The present invention describes a compound (I) that is 8-50 nucleobases
C   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
C   desaturase, and which specifically hybridises with and inhibits the
C   expression of human stearoyl-CoA desaturase, or which specifically
C   hybridises with at least an 8-nucleobase portion of an active site on a
C   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
C   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
C   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
C   activities, and can be used in antisense therapy. The antisense compounds
C   (I) can be used for modulating the expression of human stearoyl-CoA
C   desaturase and for treating diseases or conditions associated with
C   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
C   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
C   The antisense compounds (I) can also be used for diagnostics,
C   therapeutics and prophylaxis, e.g. to prevent or delay infection,
C   inflammation or tumour formation, as research reagents and kits, and in
C   distinguishing between functions of various members of a biological
C   pathway. The present sequence represents a human stearoyl-CoA desaturase
C   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
C   given in an example from the present invention.
XX
Q   Sequence 20 BP; 7 A; 7 C; 5 G; 1 T; 0 other;

 ABZ77063  Length: 20  October 16, 2003 08:46  Type: N  Check: 4416  ..
z77063

Query Match              0.4%;  Score 20;  DB 1;  Length 20;
Best Local Similarity   100.0%;  Pred. No. 0;
Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

        771 TCTCTCACGTGGGTTGGCTG 790
            ||||||||||||||||||||
         20 TCTCTCACGTGGGTTGGCTG 1


SULT 15
z77064/c
 TOIG of: abz77064  check: 4921  from: 1  to: 20

ID   ABZ77064 standard; DNA; 20 BP.
XX
AC   ABZ77064;
XX
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```
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:19.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1. .20
; FT                   /*tag= a
; FT                   /mod_base= OTHER
; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag= b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag= c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM, Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Claim 3; Page 94; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8 nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 5 A; 7 C; 4 G; 4 T; 0 other;
;
;  ABZ77064  Length: 20  October 16, 2003 08:46  Type: N  Check: 4921  ..
abz77064
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ry Match              0.4%;  Score 20;  DB 1;  Length 20;
st Local Similarity   100.0%;  Pred. No. 0;
ches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

      824 GGGAGTACGCTAGACTTGTC 843
          ||||||||||||||||||||
       20 GGGAGTACGCTAGACTTGTC 1


LT 16
7065/c
DIG of: abz77065  check: 4942  from: 1  to: 20

    ABZ77065 standard; DNA; 20 BP.

    ABZ77065;

    07-MAY-2003  (first entry)

    Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:20.

    Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
    2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
    antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
    abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
    atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.

    Homo sapiens.
    Synthetic.

    Key             Location/Qualifiers
    modified_base   1. .20
                    /*tag=  a
                    /mod_base= OTHER
                    /note= "phosphorothioate linkages"
    modified_base   1. .5
                    /*tag=  b
                    /mod_base= OTHER
                    /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
    modified_base   16. .20
                    /*tag=  c
                    /mod_base= OTHER
                    /note= "2'-O-methoxyethyl (2'-MOE) gapmer"

    WO2003012031-A2.

    13-FEB-2003.

    16-JUL-2002; 2002WO-US22676.

    30-JUL-2001; 2001US-0918187.

    (ISIS-) ISIS PHARM INC.

    Crooke RM,  Graham MJ;

    WPI; 2003-248160/24.

PT  New antisense oligonucleotides targeted to nucleic acids encoding human
PT  stearoyl-CoA desaturase, useful for treating diseases associated with
PT  the desaturase, e.g. atherosclerosis, and in diagnostic and research
PT  applications -

PS  Claim 3; Page 94; 117pp; English.

CC  The present invention describes a compound (I) that is 8-50 nucleobases
CC  in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
CC  desaturase, and which specifically hybridises with and inhibits the
CC  expression of human stearoyl-CoA desaturase, or which specifically
CC  hybridises with at least an 8-nucleobase portion of an active site on a
CC  nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
CC  stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
CC  cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
CC  activities, and can be used in antisense therapy. The antisense compounds
CC  (I) can be used for modulating the expression of human stearoyl-CoA
CC  desaturase and for treating diseases or conditions associated with
CC  expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
CC  cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
CC  The antisense compounds (I) can also be used for diagnostics,
CC  therapeutics and prophylaxis, e.g. to prevent or delay infection,
CC  inflammation or tumour formation, as research reagents and kits, and in
CC  distinguishing between functions of various members of a biological
CC  pathway. The present sequence represents a human stearoyl-CoA desaturase
CC  inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
CC  given in an example from the present invention.
XX
SQ  Sequence 20 BP; 4 A; 6 C; 6 G; 4 T; 0 other;
;
;  ABZ77065  Length: 20  October 16, 2003 06:46  Type: N  Check: 4942  ..
abz77065

  Query Match              0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1011 ATGCCACCTGGCTGGTGAAC 1030
              ||||||||||||||||||||
Db         20 ATGCCACCTGGCTGGTGAAC 1

RESULT 17
abz77066/c
;  TOIG of: abz77066  check: 4288  from: 1  to: 20
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; ID   ABZ77066 standard; DNA; 20 BP.
; XX
; AC   ABZ77066;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:21.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1. .20
; FT                   /*tag=  a
; FT                   /mod_base= OTHER
; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag=  b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag=  c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
```

```
I    Crooke RM,  Graham MJ;
X
R    WPI; 2003-248160/24.
X
T    New antisense oligonucleotides targeted to nucleic acids encoding human
T    stearoyl-CoA desaturase, useful for treating diseases associated with
T    the desaturase, e.g. atherosclerosis, and in diagnostic and research
T    applications  -
X
S    Example 15; Page 94; 117pp; English.
X
C    The present invention describes a compound (I) that is 8-50 nucleobases
C    in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
C    desaturase, and which specifically hybridises with and inhibits the
C    expression of human stearoyl-CoA desaturase, or which specifically
C    hybridises with at least an 8-nucleobase portion of an active site on a
C    nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
C    stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
C    cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
C    activities, and can be used in antisense therapy. The antisense compounds
C    (I) can be used for modulating the expression of human stearoyl-CoA
C    desaturase and for treating diseases or conditions associated with
C    expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
C    cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
C    The antisense compounds (I) can also be used for diagnostics,
C    therapeutics and prophylaxis, e.g. to prevent or delay infection,
C    inflammation or tumour formation, as research reagents and kits, and in
C    distinguishing between functions of various members of a biological
C    pathway. The present sequence represents a human stearoyl-CoA desaturase
C    inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
C    given in an example from the present invention.
XX
SQ   Sequence 20 BP; 5 A; 8 C; 4 G; 3 T; 0 other;

 ABZ77066  Length: 20  October 16, 2003 08:46  Type: N  Check: 4288  ..
z77066

Query Match              0.4%;  Score 20;  DB 1;  Length 20;
Best Local Similarity   100.0%;  Pred. No. 0;
Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

       1111 TGTGGGTGAGGGCTTCCACA 1130
            ||||||||||||||||||||
         20 TGTGGGTGAGGGCTTCCACA 1

SULT 18
z77067/c
 TOIG of: abz77067  check: 4977  from: 1  to: 20

ID   ABZ77067 standard; DNA; 20 BP.
XX
AC   ABZ77067;
XX
DT   07-MAY-2003  (first entry)
XX
DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:22.
XX
KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1. .20
FT                    /*tag=  a
FT                    /mod_base= OTHER
FT                    /note= "phosphorothioate linkages"
FT   modified_base    1. .5
;FT                   /*tag=  b
;FT                   /mod_base= OTHER
;FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
;FT   modified_base    16. .20
;FT                   /*tag=  c
;FT                   /mod_base= OTHER
;FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
;XX
;PN   WO2003012031-A2.
;XX
;PD   13-FEB-2003.
;XX
;PF   16-JUL-2002; 2002WO US22676.
;XX
;PR   30-JUL-2001; 2001US-0918187.
;XX
;PA   (ISIS-) ISIS PHARM INC.
;XX
;PI   Crooke RM,  Graham MJ;
;XX
;DR   WPI; 2003-248160/24.
;XX
;PT   New antisense oligonucleotides targeted to nucleic acids encoding human
;PT   stearoyl-CoA desaturase, useful for treating diseases associated with
;PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
;PT   applications
;XX
;PS   Example 15; Page 94; 117pp; English.
;XX
;CC   The present invention describes a compound (I) that is 8-50 nucleobases
;CC   in length targeted to a nucleic acid molecule encoding human stearoyl CoA
;CC   desaturase, and which specifically hybridises with and inhibits the
;CC   expression of human stearoyl-CoA desaturase, or which specifically
;CC   hybridises with at least an 8-nucleobase portion of an active site on a
;CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
;CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
;CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
;CC   activities, and can be used in antisense therapy. The antisense compounds
;CC   (I) can be used for modulating the expression of human stearoyl CoA
;CC   desaturase and for treating diseases or conditions associated with
;CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
;CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
;CC   The antisense compounds (I) can also be used for diagnostics,
;CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
;CC   inflammation or tumour formation, as research reagents and kits, and in
;CC   distinguishing between functions of various members of a biological
;CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
;CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
;CC   given in an example from the present invention.
;XX
;SQ   Sequence 20 BP; 4 A; 4 C; 7 G; 5 T; 0 other;
;
;  ABZ77067  Length: 20  October 16, 2003 08:46  Type: N  Check: 4977  ..
abz77067

  Query Match              0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1171 GTACCGCTGGCACATCAACT 1190
              ||||||||||||||||||||
Db         20 GTACCGCTGGCACATCAACT 1

RESULT 19
abz77068/c
;  TOIG of: abz77068  check: 4562  from: 1  to: 20
;
; ID   ABZ77068 standard; DNA; 20 BP.
; XX
; AC   ABZ77068;
; XX
; DT   07-MAY-2003  (first entry)
```

```
XX
DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:23.
XX
KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1..20
FT                    /*tag= a
FT                    /mod_base= OTHER
FT                    /note= "phosphorothioate linkages"
FT   modified_base    1..5
FT                    /*tag= b
FT                    /mod_base= OTHER
FT                    /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
FT   modified_base    16..20
FT                    /*tag= c
FT                    /mod_base= OTHER
FT                    /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
XX
PN   WO2003012031-A2.
XX
PD   13-FEB-2003.
XX
PF   16-JUL-2002; 2002WO-US22676.
XX
PR   30-JUL-2001; 2001US-0918187.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Crooke RM,  Graham MJ;
XX
DR   WPI; 2003-248160/24.
XX
PT   New antisense oligonucleotides targeted to nucleic acids encoding human
PT   stearoyl-CoA desaturase, useful for treating diseases associated with
PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
PT   applications -
XX
PS   Claim 3; Page 94; 117pp; English.
XX
CC   The present invention describes a compound (I) that is 8-50 nucleobases
CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
CC   desaturase, and which specifically hybridises with and inhibits the
CC   expression of human stearoyl-CoA desaturase, or which specifically
CC   hybridises with at least an 8-nucleobase portion of an active site on a
CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
CC   activities, and can be used in antisense therapy. The antisense compounds
CC   (I) can be used for modulating the expression of human stearoyl-CoA
CC   desaturase and for treating diseases or conditions associated with
CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
CC   The antisense compounds (I) can also be used for diagnostics,
CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
CC   inflammation or tumour formation, as research reagents and kits, and in
CC   distinguishing between functions of various members of a biological
CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
CC   given in an example from the present invention.
XX
SQ   Sequence 20 BP; 6 A; 9 C; 3 G; 2 T; 0 other;

 Query Match             0.4%;  Score 20;  DB 1;  Length 20;
 Best Local Similarity   100.0%;  Pred. No. 0;
 Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1307 AGTGGCTGAGTTTGGGGTCC 1326
             ||||||||||.|||||||||
Db         20 AGTGGCTGAGTTTGGGGTCC 1

RESULT 20
abz77069/c
;  TOIG of: abz77069  check: 4693  from: 1  to: 20
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; ID   ABZ77069 standard; DNA; 20 BP.
; XX
; AC   ABZ77069;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:24.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base    1..20
; FT                    /*tag= a
; FT                    /mod_base= OTHER
; FT                    /note= "phosphorothioate linkages"
; FT   modified_base    1..5
; FT                    /*tag= b
; FT                    /mod_base= OTHER
; FT                    /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base    16..20
; FT                    /*tag= c
; FT                    /mod_base= OTHER
; FT                    /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM,  Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Example 15; Page 94; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory

 ABZ77068  Length: 20  October 16, 2003 08:46  Type: N  Check: 4562  ..
z77068
```

```
;C   activities, and can be used in antisense therapy. The antisense compounds
;C   (I) can be used for modulating the expression of human stearoyl-CoA
;C   desaturase and for treating diseases or conditions associated with
;C   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
;C   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
;C   The antisense compounds (I) can also be used for diagnostics,
;C   therapeutics and prophylaxis, e.g. to prevent or delay infection,
;C   inflammation or tumour formation, as research reagents and kits, and in
;C   distinguishing between functions of various members of a biological
;C   pathway. The present sequence represents a human stearoyl-CoA desaturase
;C   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
;C   given in an example from the present invention.
;X
;Q   Sequence 20 BP; 5 A; 3 C; 9 G; 3 T; 0 other;

 ABZ77069  Length: 20  October 16, 2003 08:46  Type: N  Check: 4693  ..
z77069

Query Match              0.4%;  Score 20;  DB 1;  Length 20;
Best Local Similarity   100.0%;  Pred. No. 0;
Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

       1581 CCCTTATTGCCTCCCAGGCA 1600
            ||||||||||||||||||||
         20 CCCTTATTGCCTCCCAGGCA 1


SULT 21
z77070/c
 TOIG of: abz77070  check: 5092  from: 1  to: 20

ID   ABZ77070 standard; DNA; 20 BP.
XX
AC   ABZ77070;
XX
DT   07-MAY-2003  (first entry)
XX
DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:25.
XX
KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1. .20
FT                    /*tag=  a
FT                    /mod_base= OTHER
FT                    /note= "phosphorothioate linkages"
FT   modified_base    1. .5
FT                    /*tag=  b
FT                    /mod_base= OTHER
FT                    /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
FT   modified_base    16. .20
FT                    /*tag=  c
FT                    /mod_base= OTHER
FT                    /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
XX
PN   WO2003012031-A2.
XX
PD   13-FEB-2003.
XX
PF   16-JUL-2002; 2002WO-US22676.
XX
PR   30-JUL-2001; 2001US-0918187.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Crooke RM,  Graham MJ;

; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Claim 3; Page 94; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 5 A; 8 C; 1 G; 6 T; 0 other;
;
;  ABZ77070  Length: 20  October 16, 2003 08:47  Type: N  Check: 5092  ..
abz77070

  Query Match              0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1861 GGGAGAGAGTTAGCATGTAT 1880
              ||||||||||||||||||||
Db         20 GGGAGAGAGTTAGCATGTAT 1


RESULT 22
abz77071/c
;  TOIG of: abz77071  check: 5009  from: 1  to: 20
;
; ID   ABZ77071 standard; DNA; 20 BP.
; XX
; AC   ABZ77071;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:26.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base    1. .20
; FT                    /*tag=  a
; FT                    /mod_base= OTHER
; FT                    /note= "phosphorothioate linkages"
; FT   modified_base    1. .5
; FT                    /*tag=  b
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                /mod_base= OTHER
                /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
  modified_base 16. .20
                /*tag= c
                /mod_base= OTHER
                /note= "2'-O-methoxyethyl (2'-MOE) gapmer"

  WO2003012031-A2.

  13-FEB-2003.

  16-JUL-2002; 2002WO-US22676.

  30-JUL-2001; 2001US-0918187.

  (ISIS-) ISIS PHARM INC.

  Crooke RM, Graham MJ;

  WPI; 2003-248160/24.

  New antisense oligonucleotides targeted to nucleic acids encoding human
  stearoyl-CoA desaturase, useful for treating diseases associated with
  the desaturase, e.g. atherosclerosis, and in diagnostic and research
  applications -

  Claim 3; Page 94; 117pp; English.

  The present invention describes a compound (I) that is 8-50 nucleobases
  in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
  desaturase, and which specifically hybridises with and inhibits the
  expression of human stearoyl-CoA desaturase, or which specifically
  hybridises with at least an 8-nucleobase portion of an active site on a
  nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
  stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
  cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
  activities, and can be used in antisense therapy. The antisense compounds
  (I) can be used for modulating the expression of human stearoyl-CoA
  desaturase and for treating diseases or conditions associated with
  expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
  cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
  The antisense compounds (I) can also be used for diagnostics,
  therapeutics and prophylaxis, e.g. to prevent or delay infection,
  inflammation or tumour formation, as research reagents and kits, and in
  distinguishing between functions of various members of a biological
  pathway. The present sequence represents a human stearoyl-CoA desaturase
  inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
  given in an example from the present invention.
X
Q   Sequence 20 BP; 6 A; 4 C; 5 G; 5 T; 0 other;

ABZ77071  Length: 20  October 16, 2003 08:47  Type: N  Check: 5009  ..
77071

uery Match              0.4%;  Score 20;  DB 1;  Length 20;
est Local Similarity   100.0%;  Pred. No. 0;
atches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

       1941 TGCCTACCTAATGAGGACTT 1960
            ||||||||||||||||||||
         20 TGCCTACCTAATGAGGACTT 1


SULT 23
z77072/c
 TOIG of: abz77072  check: 4907  from: 1  to: 20

ID   ABZ77072 standard; DNA; 20 BP.
XX
AC   ABZ77072;
XX
DT   07-MAY-2003  (first entry)
XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:27.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1. .20
; FT                   /*tag= a
; FT                   /mod_base= OTHER
; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag= b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag= c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM, Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Example 15; Page 94; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8 nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 6 A; 3 C; 6 G; 5 T; 0 other;
;
;  ABZ77072  Length: 20  October 16, 2003 08:47  Type: N  Check: 4907  ..
abz77072

  Query Match              0.4%;  Score 20;  DB 1;  Length 20;
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st Local Similarity   100.0%;  Pred. No. 0;
tches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

      2241 TCCATGAGCTGCTCATTACA 2260
           ||||||||||||||||||||
        20 TCCATGAGCTGCTCATTACA 1


JLT 24
77073/c
TOIG of: abz77073  check: 4740  from: 1  to: 20

D   ABZ77073 standard; DNA; 20 BP.
K
C   ABZ77073;
K
T   07-MAY-2003  (first entry)
X
E   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:28.
X
W   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
W   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
W   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
W   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
W   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
K
S   Homo sapiens.
S   Synthetic.
X
H   Key             Location/Qualifiers
T   modified_base   1. .20
T                   /*tag=  a
T                   /mod_base= OTHER
T                   /note= "phosphorothioate linkages"
T   modified_base   1. .5
T                   /*tag=  b
T                   /mod_base= OTHER
T                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
T   modified_base   16. .20
T                   /*tag=  c
T                   /mod_base= OTHER
T                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
X
N   WO2003012031-A2.
X
D   13-FEB-2003.
X
F   16-JUL-2002; 2002WO-US22676.
X
R   30-JUL-2001; 2001US-0918187.
X
A   (ISIS-) ISIS PHARM INC.
X
I   Crooke RM,  Graham MJ;
X
R   WPI; 2003-248160/24.
X
T   New antisense oligonucleotides targeted to nucleic acids encoding human
T   stearoyl-CoA desaturase, useful for treating diseases associated with
T   the desaturase, e.g. atherosclerosis, and in diagnostic and research
T   applications -
XX
S   Example 15; Page 94; 117pp; English.
XX
C   The present invention describes a compound (I) that is 8-50 nucleobases
C   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
C   desaturase, and which specifically hybridises with and inhibits the
C   expression of human stearoyl-CoA desaturase, or which specifically
C   hybridises with at least an 8-nucleobase portion of an active site on a
C   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
C   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
C   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
C   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 5 A; 8 C; 2 G; 5 T; 0 other;
;
;  ABZ77073  Length: 20  October 16, 2003 08:47  Type: N  Check: 4740  ..
abz77073

  Query Match              0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity  100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2616 GGGCTTGAGAAGGTTACTGA 2635
             ||||||||||||||||||||
Db         20 GGGCTTGAGAAGGTTACTGA 1


RESULT 25
abz77074/c
;  TOIG of: abz77074  check: 4498  from: 1  to: 20
;
; ID   ABZ77074 standard; DNA; 20 BP.
; XX
; AC   ABZ77074;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:29.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1. .20
; FT                   /*tag=  a
; FT                   /mod_base= OTHER
; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag=  b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag=  c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM,  Graham MJ;
; XX
```

```
R   WPI; 2003-248160/24.
K
T   New antisense oligonucleotides targeted to nucleic acids encoding human
T   stearoyl-CoA desaturase, useful for treating diseases associated with
T   the desaturase, e.g. atherosclerosis, and in diagnostic and research
T   applications -
K
S   Claim 3; Page 94; 117pp; English.
K
C   The present invention describes a compound (I) that is 8-50 nucleobases
C   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
C   desaturase, and which specifically hybridises with and inhibits the
C   expression of human stearoyl-CoA desaturase, or which specifically
C   hybridises with at least an 8-nucleobase portion of an active site on a
C   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
C   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
C   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
C   activities, and can be used in antisense therapy. The antisense compounds
C   (I) can be used for modulating the expression of human stearoyl-CoA
C   desaturase and for treating diseases or conditions associated with
C   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
C   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
C   The antisense compounds (I) can also be used for diagnostics,
C   therapeutics and prophylaxis, e.g. to prevent or delay infection,
C   inflammation or tumour formation, as research reagents and kits, and in
C   distinguishing between functions of various members of a biological
C   pathway. The present sequence represents a human stearoyl-CoA desaturase
C   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
C   given in an example from the present invention.
X
Q   Sequence 20 BP; 5 A; 5 C; 8 G; 2 T; 0 other;

ABZ77074  Length: 20  October 16, 2003 08:47  Type: N  Check: 4498  ..
77074

uery Match              0.4%;  Score 20;  DB 1;  Length 20;
est Local Similarity   100.0%;  Pred. No. 0;
atches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

      2980 CTTGCTGTCCAGGCAGCTCC 2999
           ||||||||||||||||||||
        20 CTTGCTGTCCAGGCAGCTCC 1


ULT 26
77075/c
TOIG of: abz77075  check: 5360  from: 1  to: 20

D   ABZ77075 standard; DNA; 20 BP.
(X
AC   ABZ77075;
(X
DT   07-MAY-2003  (first entry)
(X
DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:30.
(X
(W   Human; stearoyl-CoA desaturase; phosphorothioate; 2' O methoxyethyl;
(W   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
(W   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1. .20
FT                    /*tag=  a
FT                    /mod_base= OTHER
FT                    /note= "phosphorothioate linkages"
FT   modified_base    1. .5
FT                    /*tag=  b
FT                    /mod_base= OTHER
; FT                    /note= "2' O methoxyethyl (2'-MOE) gapmer"
; FT   modified_base    16. .20
; FT                    /*tag=  c
; FT                    /mod_base= OTHER
; FT                    /note= "2' O methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031 A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US022676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM, Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications
; XX
; PS   Claim 3; Page 94; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 4 A; 6 C; 4 G; 6 T; 0 other;
;
;  ABZ77075  Length: 20  October 16, 2003 08:47  Type: N  Check: 5360  ..
abz77075

  Query Match              0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       3011 AGAATGCTCAGGGTCACTGA 3030
              ||||||||||||||||||||
Db         20 AGAATGCTCAGGGTCACTGA 1


RESULT 27
abz77076/c
;  TOIG of: abz77076  check: 4773  from: 1  to: 20
;
; ID   ABZ77076 standard; DNA; 20 BP.
; XX
; AC   ABZ77076;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:31.
```

```
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1. .20
; FT                   /*tag=  a
; FT                   /mod_base= OTHER
; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag=  b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag=  c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM,  Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Claim 3; Page 94; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 3 A; 7 C; 6 G; 4 T; 0 other;
;
;  ABZ77076  Length: 20  October 16, 2003 08:47  Type: N  Check: 4770  ..
abz77076

  Query Match             0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;

  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       3231 TTGAGCCAGTGGGCCAGCCA 3250
              ||||||||||||||||||||
Db         20 TTGAGCCAGTGGGCCAGCCA 1


RESULT 28
abz77077/c
;  TOIG of: abz77077  check: 5412  from: 1  to: 20
;
; ID   ABZ77077 standard; DNA; 20 BP.
; XX
; AC   ABZ77077;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:32.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1. .20
; FT                   /*tag=  a
; FT                   /mod_base= OTHER
; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag=  b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag=  c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM,  Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Example 15; Page 94; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
```

```
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 2 A; 7 C; 5 G; 6 T; 0 other;
;
;  ABZ77077  Length: 20  October 16, 2003 08:47  Type: N  Check: 5412  ..
abz77077

  Query Match             0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       3291 GTCAGAACCAGAGGGCATGC 3310
              ||||||||||||||||||||
Db         20 GTCAGAACCAGAGGGCATGC 1


RESULT 29
abz77078/c
;  TOIG of: abz77078  check: 4976  from: 1  to: 20
;
; ID   ABZ77078 standard; DNA; 20 BP.
; XX
; AC   ABZ77078;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:33.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1. .20
; FT                   /*tag=  a
; FT                   /mod_base= OTHER
; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag=  b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag=  c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM,  Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications
; XX
; PS   Claim 3; Page 94; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 3 A; 7 C; 4 G; 6 T; 0 other;
;
;  ABZ77078  Length: 20  October 16, 2003 08:47  Type: N  Check: 4976  ..
abz77078

  Query Match             0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       3471 GTCAGGGTGAACTGCAAAGC 3490
              ||||||||||||||||||||
Db         20 GTCAGGGTGAACTGCAAAGC 1


RESULT 30
abz77079/c
;  TOIG of: abz77079  check: 4767  from: 1  to: 20
;
; ID   ABZ77079 standard; DNA; 20 BP.
; XX
; AC   ABZ77079;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl CoA desaturase phosphorothioate oligonucleotide SEQ:34.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1. .20
; FT                   /*tag=  a
; FT                   /mod_base= OTHER
; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag=  b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
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; FT   modified_base   16. .20
; FT                   /*tag= c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM,  Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Example 15; Page 94; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 5 A; 5 C; 5 G; 5 T; 0 other;
;
;  ABZ77079  Length: 20  October 16, 2003 08:47  Type: N  Check: 4767  ..
abz77079

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  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       3502 CCTGGGATTTGAGATACCAC 3521
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Db         20 CCTGGGATTTGAGATACCAC 1


RESULT 31
abz77080/c
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; ID   ABZ77080 standard; DNA; 20 BP.
; XX
; AC   ABZ77080;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:35.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
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; FT                   /note= "phosphorothioate linkages"
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; FT                   /*tag= b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag= c
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; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM,  Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Example 15; Page 94; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 4 A; 7 C; 4 G; 5 T; 0 other;
;
;  ABZ77080  Length: 20  October 16, 2003 08:47  Type: N  Check: 5076  ..
abz77080

  Query Match              0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;
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Qy       3791 ACAGGGGTTAGCCTGGACTA 3810
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Db         20 ACAGGGGTTAGCCTGGACTA 1


RESULT 32
abz77081/c
;  TOIG of: abz77081  check: 5506  from: 1  to: 20
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; XX
; AC   ABZ77081;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:36.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1. .20
; FT                   /*tag=  a
; FT                   /mod_base= OTHER
; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag=  b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag=  c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM,  Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Example 15; Page 94; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 3 A; 6 C; 3 G; 8 T; 0 other;
;
;  ABZ77081  Length: 20  October 16, 2003 08:47  Type: N  Check: 5506  ..
abz77081

  Query Match             0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       3851 AGGATCTAAGGGAAGATCAC 3870
              ||||||||||||||||||||
Db         20 AGGATCTAAGGGAAGATCAC 1


RESULT 33
abz77082/c
;  TOIG of: abz77082  check: 4285  from: 1  to: 20
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; ID   ABZ77082 standard; DNA; 20 BP.
; XX
; AC   ABZ77082;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:37.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
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; OS   Homo sapiens.
; OS   Synthetic.
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; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag=  b
; FT                   /mod_base= OTHER
; FT                   /note= "2' O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag=  c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031 A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM,  Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
```

```
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Example 15; Page 94; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 6 A; 10 C; 2 G; 2 T; 0 other;
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;  ABZ77082  Length: 20  October 16, 2003 08:47  Type: N  Check: 4285  ..
abz77082

  Query Match              0.4%;  Score 20;  DB 1;  Length 20;
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  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4101 GTGGGAGTGTGTCTGCTGAG 4120
              ||||||||||||||||||||
Db         20 GTGGGAGTGTGTCTGCTGAG 1


RESULT 34
abz77083/c
;  TOIG of: abz77083  check: 4556  from: 1  to: 20
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; ID   ABZ77083 standard; DNA; 20 BP.
; XX
; AC   ABZ77083;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:38.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
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; FT   modified_base   1. .20
; FT                   /*tag= a
; FT                   /mod_base= OTHER
; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag= b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag= c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM, Graham MJ;
; XX
; DR   WPI; 2003-248163/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Example 15; Page 94; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 5 A; 7 C; 4 G; 4 T; 0 other;
;
;  ABZ77083  Length: 20  October 16, 2003 08:47  Type: N  Check: 4556  ..
abz77083

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RESULT 35
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; XX
; AC   ABZ77084;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:39.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
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; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
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; OS   Homo sapiens.
; OS   Synthetic.
; XX
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; FT   modified_base   1. .20
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; FT                   /mod_base= OTHER
; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag= b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag= c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2' MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM, Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Claim 3; Page 94; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 7 A; 5 C; 4 G; 4 T; 0 other;
;
;  ABZ77084  Length: 20  October 16, 2003 08:47  Type: N  Check: 4590  ..
abz77084

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  Best Local Similarity  100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4406 GGGCTTCATTCTGGAAACTT 4425
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Db         20 GGGCTTCATTCTGGAAACTT 1


RESULT 36
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; ID   ABZ77085 standard; DNA; 20 BP.
; XX
; AC   ABZ77085;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl CoA desaturase phosphorothioate oligonucleotide SEQ:40.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1. .20
; FT                   /*tag= a
; FT                   /mod_base= OTHER
; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag= b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag= c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2' MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM, Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Example 15; Page 94; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
```

; CC cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC The antisense compounds (I) can also be used for diagnostics,
; CC therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC inflammation or tumour formation, as research reagents and kits, and in
; CC distinguishing between functions of various members of a biological
; CC pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC given in an example from the present invention.
; XX
; SQ Sequence 20 BP; 10 A; 5 C; 3 G; 2 T; 0 other;
;
; ABZ77085 Length: 20 October 16, 2003 08:47 Type: N Check: 4387 ..
abz77085

Query Match 0.4%; Score 20; DB 1; Length 20;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 4571 GTATCTTGGGTGTATTCTCT 4590
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Db 20 GTATCTTGGGTGTATTCTCT 1

RESULT 37
abz77086/c
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; ID ABZ77086 standard; DNA; 20 BP.
; XX
; AC ABZ77086;
; XX
; DT 07-MAY-2003 (first entry)
; XX
; DE Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:41.
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; KW Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW 2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS Homo sapiens.
; OS Synthetic.
; XX
; FH Key Location/Qualifiers
; FT modified_base 1. .20
; FT /*tag= a
; FT /mod_base= OTHER
; FT /note= "phosphorothioate linkages"
; FT modified_base 1. .5
; FT /*tag= b
; FT /mod_base= OTHER
; FT /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT modified_base 16. .20
; FT /*tag= c
; FT /mod_base= OTHER
; FT /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN WO2003012031-A2.
; XX
; PD 13-FEB-2003.
; XX
; PF 16-JUL-2002; 2002WO-US22676.
; XX
; PR 30-JUL-2001; 2001US-0918187.
; XX
; PA (ISIS-) ISIS PHARM INC.
; XX
; PI Crooke RM, Graham MJ;
; XX
; DR WPI; 2003-248160/24.
; XX
; PT New antisense oligonucleotides targeted to nucleic acids encoding human
; PT stearoyl-CoA desaturase, useful for treating diseases associated with
; PT the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT applications -
; XX
; PS Example 15; Page 95; 117pp; English.
; XX
; CC The present invention describes a compound (I) that is 8-50 nucleobases
; CC in length targeted to a nucleic acid molecule encoding human stearoyl CoA
; CC desaturase, and which specifically hybridises with and inhibits the
; CC expression of human stearoyl-CoA desaturase, or which specifically
; CC hybridises with at least an 8-nucleobase portion of an active site on a
; CC nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC activities, and can be used in antisense therapy. The antisense compounds
; CC (I) can be used for modulating the expression of human stearoyl-CoA
; CC desaturase and for treating diseases or conditions associated with
; CC expression of human stearoyl CoA desaturase, e.g. abnormal lipid or
; CC cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC The antisense compounds (I) can also be used for diagnostics,
; CC therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC inflammation or tumour formation, as research reagents and kits, and in
; CC distinguishing between functions of various members of a biological
; CC pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC given in an example from the present invention.
; XX
; SQ Sequence 20 BP; 5 A; 4 C; 5 G; 6 T; 0 other;
;
; ABZ77086 Length: 20 October 16, 2003 08:47 Type: N Check: 4986 ..
abz77086

Query Match 0.4%; Score 20; DB 1; Length 20;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 4708 CTGGGCAAGTCACTTAACTA 4727
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Db 20 CTGGGCAAGTCACTTAACTA 1

RESULT 38
abz77087/c
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; ID ABZ77087 standard; DNA; 20 BP.
; XX
; AC ABZ77087;
; XX
; DT 07-MAY-2003 (first entry)
; XX
; DE Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:42.
; XX
; KW Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW 2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS Homo sapiens.
; OS Synthetic.
; XX
; FH Key Location/Qualifiers
; FT modified_base 1. .20
; FT /*tag= a
; FT /mod_base= OTHER
; FT /note= "phosphorothioate linkages"
; FT modified_base 1. .5
; FT /*tag= b
; FT /mod_base= OTHER
; FT /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT modified_base 16. .20
; FT /*tag= c

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; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM,  Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications
; XX
; PS   Example 15; Page 95; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 3 A; 4 C; 7 G; 6 T; 0 other;
;
;  ABZ77087  Length: 20  October 16, 2003 08:47  Type: N  Check: 5424  ..
abz77087

  Query Match             0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4771 ACTGACCTACCTCAAAGGGC 4790
              ||||||||||||||||||||
Db         20 ACTGACCTACCTCAAAGGGC 1


RESULT 39
abz77088/c
;  TOIG of: abz77088  check: 4667  from: 1  to: 20
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; ID   ABZ77088 standard; DNA; 20 BP.
; XX
; AC   ABZ77088;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:43.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; CS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1..20
; FT                   /*tag= a
; FT                   /mod_base= OTHER
; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1..5
; FT                   /*tag= b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16..20
; FT                   /*tag= c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM,  Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications
; XX
; PS   Claim 3; Page 95; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 8 A; 5 C; 3 G; 4 T; 0 other;
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;  ABZ77088  Length: 20  October 16, 2003 08:47  Type: N  Check: 4667  ..
abz77088

  Query Match             0.4%;  Score 20;  DB 1;  Length 20;
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  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4921 GCTGTCATTAGTCTATATGG 4940
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Db          20 GCTGTCATTAGTCTATATGG 1


RESULT 40
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;  TOIG of: abz77089  check: 5443  from: 1  to: 20
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; ID   ABZ77089 standard; DNA; 20 BP.
; XX
; AC   ABZ77089;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:44.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
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; FT   modified_base   1. .5
; FT                   /*tag=  b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag=  c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM,  Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Claim 3; Page 95; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 3 A; 4 C; 5 G; 8 T; 0 other;
;
;  ABZ77089  Length: 20  October 16, 2003 08:47  Type: N  Check: 5443  ..
abz77089

  Query Match              0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5021 ATTGCCACGGAAACATACAG 5040
                ||||||||||||||||||||
Db         20 ATTGCCACGGAAACATACAG 1


RESULT 41
abz77090/c
;  TOIG of: abz77090  check: 5760  from: 1  to: 20
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; ID   ABZ77090 standard; DNA; 20 BP.
; XX
; AC   ABZ77090;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:45.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
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; FT                   /note= "phosphorothioate linkages"
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; FT                   /*tag=  b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag=  c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM,  Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
```

```
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications  -
; XX
; PS   Claim 3; Page 95; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 2 A; 5 C; 6 G; 7 T; 0 other;
;
;  ABZ77090  Length: 20  October 16, 2003 08:47  Type: N  Check: 5760  ..
abz77090

  Query Match              0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         101 ACAACCAGCTAGCGTGCAAG 120
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Db          20 ACAACCAGCTAGCGTGCAAG 1


RESULT 42
abz77091/c
;  TOIG of: abz77091  check: 5521  from: 1  to: 20
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; ID   ABZ77091 standard; DNA; 20 BP.
; XX
; AC   ABZ77091;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:46.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
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; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag=  b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag=  c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US022674.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM,  Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications  -
; XX
; PS   Claim 3; Page 95; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 4 A; 7 C; 2 G; 7 T; 0 other;
;
;  ABZ77091  Length: 20  October 16, 2003 08:47  Type: N  Check: 5521  ..
abz77091

  Query Match              0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         331 AGATAAGTTGGAGACGATGC 350
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Db          20 AGATAAGTTGGAGACGATGC 1


RESULT 43
abz77092/c
;  TOIG of: abz77092  check: 5425  from: 1  to: 20
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; ID   ABZ77092 standard; DNA; 20 BP.
; XX
; AC   ABZ77092;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:47.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
```

```
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1. .20
; FT                   /*tag= a
; FT                   /mod_base= OTHER
; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag= b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag= c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM, Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Claim 3; Page 95; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 5 A; 3 C; 5 G; 7 T; 0 other;
;
;  ABZ77092  Length: 20  October 16, 2003 08:47  Type: N  Check: 5425  ..
abz77092

  Query Match              0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        451 CTGGAGAAACATCATCCTTA 470
              ||||||||||||||||||||
Db         20 CTGGAGAAACATCATCCTTA 1


RESULT 44
abz77093/c
;  TOIG of: abz77093  check: 4634  from: 1  to: 20
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; ID   ABZ77093 standard; DNA; 20 BP.
; XX
; AC   ABZ77093;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:48.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1. .20
; FT                   /*tag= a
; FT                   /mod_base= OTHER
; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag= b
; FT                   /mod_base= OTHER
; FT                   /note= "2' O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag= c
; FT                   /mod_base= OTHER
; FT                   /note= "2' O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM, Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Claim 3; Page 95; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
```

```
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 7 A; 6 C; 5 G; 2 T; 0 other;
;
;  ABZ77093  Length: 20  October 16, 2003 08:47  Type: N  Check: 4634  ..
abz77093

  Query Match             0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        526 GTTCTACACCTGGCTTTGGG 545
              ||||||||||||||||||||
Db         20 GTTCTACACCTGGCTTTGGG 1


RESULT 45
abz77094/c
;  TOIG of: abz77094  check: 4800  from: 1  to: 20
;
; ID   ABZ77094 standard; DNA; 20 BP.
; XX
; AC   ABZ77094;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:49.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1. .20
; FT                   /*tag=  a
; FT                   /mod_base= OTHER
; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag=  b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag=  c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM,  Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Claim 3; Page 95; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 4 A; 5 C; 7 G; 4 T; 0 other;
;
;  ABZ77094  Length: 20  October 16, 2003 08:47  Type: N  Check: 4803  ..
abz77094

  Query Match             0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        601 GTGGAGCCACCGCTCTTACA 620
              ||||||||||||||||||||
Db         20 GTGGAGCCACCGCTCTTACA 1


RESULT 46
abz77095/c
;  TOIG of: abz77095  check: 5550  from: 1  to: 20
;
; ID   ABZ77095 standard; DNA; 20 BP.
; XX
; AC   ABZ77095;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:50.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
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; FT                   /*tag=  a
; FT                   /mod_base= OTHER
; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag=  b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag=  c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
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; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM,  Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Claim 3; Page 95; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 4 A; 4 C; 5 G; 7 T; 0 other;
;
;  ABZ77095  Length: 20  October 16, 2003 08:47  Type: N  Check: 5550  ..
abz77095

  Query Match             0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        661 CACAATGGCATTCCAGAATG 680
              ||||||||||||||||||||
Db         20 CACAATGGCATTCCAGAATG 1


RESULT 47
abz77096/c
;  TOIG of: abz77096  check: 5463  from: 1  to: 20
;
; ID   ABZ77096 standard; DNA; 20 BP.
; XX
; AC   ABZ77096;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:51.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1. .20
; FT                   /*tag= a
; FT                   /mod_base= OTHER
; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag= b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag= c
; FT                   /mod_base= OTHER
; FT                   /note= "2' O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM,  Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Claim 3; Page 95; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 5 A; 2 C; 6 G; 7 T; 0 other;
;
;  ABZ77096  Length: 20  October 16, 2003 08:47  Type: N  Check: 5463  ..
abz77096

  Query Match             0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        731 ACACATGCTGATCCTCATAA 750
              ||||||||||||||||||||
Db         20 ACACATGCTGATCCTCATAA 1
```

```
RESULT 48
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;  TOIG of: abz77097  check: 5079  from: 1  to: 20
;
; ID   ABZ77097 standard; DNA; 20 BP.
; XX
; AC   ABZ77097;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:52.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1. .20
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; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag=  b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag=  c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM,  Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Claim 3; Page 95; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8 50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 5 A; 7 C; 3 G; 5 T; 0 other;
;
;  ABZ77097  Length: 20  October 16, 2003 08:47  Type: N  Check: 5079  ..
abz77097

  Query Match             0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        861 AACTGGTGATGTTCCAGAGG 880
              ||||||||||||||||||||
Db         20 AACTGGTGATGTTCCAGAGG 1


RESULT 49
abz77098/c
;  TOIG of: abz77098  check: 4421  from: 1  to: 20
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; ID   ABZ77098 standard; DNA; 20 BP.
; XX
; AC   ABZ77098;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:53.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1. .20
; FT                   /*tag=  a
; FT                   /mod_base= OTHER
; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag=  b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag=  c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM,  Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
```

```
; XX
; PS   Claim 3; Page 95; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 7 A; 5 C; 6 G; 2 T; 0 other;
;
;  ABZ77098  Length: 20  October 16, 2003 08:47  Type: N  Check: 4421  ..
abz77098

  Query Match             0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        901 GCTGCTGATGTGCTTCATCC 920
              ||||||||||||||||||||
Db         20 GCTGCTGATGTGCTTCATCC 1


RESULT 50
abz77099/c
;  TOIG of: abz77099  check: 4391  from: 1  to: 20
;
; ID   ABZ77099 standard; DNA; 20 BP.
; XX
; AC   ABZ77099;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:54.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1. .20
; FT                   /*tag=  a
; FT                   /mod_base= OTHER
; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag=  b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag=  c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM, Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Claim 3; Page 95; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 7 A; 7 C; 3 G; 3 T; 0 other;
;
;  ABZ77099  Length: 20  October 16, 2003 08:47  Type: N  Check: 4391  ..
abz77099

  Query Match             0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        936 CCTGGTATTTCTGGGGTGAA 955
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Db         20 CCTGGTATTTCTGGGGTGAA 1


RESULT 51
abz77100/c
;  TOIG of: abz77100  check: 5064  from: 1  to: 20
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; ID   ABZ77100 standard; DNA; 20 BP.
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; AC   ABZ77100;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:55.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
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; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1. .20
; FT                   /*tag= a
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; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag= b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2' MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag= c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM, Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Claim 3; Page 95; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 6 A; 6 C; 4 G; 4 T; 0 other;
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;  ABZ77100  Length: 20  October 16, 2003 08:47  Type: N  Check: 5064  ..
abz77100

  Query Match              0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1082 CGGGAGAATATCCTGGTTTC 1101
              ||||||||||||||||||||
Db         20 CGGGAGAATATCCTGGTTTC 1
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RESULT 52
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;  TOTG of: abz77101  check: 5038  from: 1  to: 20
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; AC   ABZ77101;
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; DT   07-MAY-2003  (first entry)
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; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:56.
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; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
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; FT                   /mod_base= OTHER
; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag= b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2' MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag= c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2' MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM, Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Claim 3; Page 95; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8 nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
```

```
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 6 A; 4 C; 5 G; 5 T; 0 other;
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;  ABZ77101  Length: 20  October 16, 2003 08:47  Type: N  Check: 5038  ..
abz77101

  Query Match              0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1151 TATGACTACTCTGCCAGTGA 1170
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Db         20 TATGACTACTCTGCCAGTGA 1


RESULT 53
abz77102/c
;  TOIG of: abz77102  check: 4800  from: 1  to: 20
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; ID   ABZ77102 standard; DNA; 20 BP.
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; AC   ABZ77102;
; XX
; DT   07-MAY-2003  (first entry)
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; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:57.
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; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
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; OS   Homo sapiens.
; OS   Synthetic.
; XX
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; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag=  b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag=  c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM,  Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Claim 3; Page 95; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 5 A; 5 C; 6 G; 4 T; 0 other;
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;  ABZ77102  Length: 20  October 16, 2003 08:47  Type: N  Check: 4800  ..
abz77102

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Qy       1261 CGCCATCTTGGCCAGGATTA 1280
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Db         20 CGCCATCTTGGCCAGGATTA 1


RESULT 54
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; ID   ABZ77103 standard; DNA; 20 BP.
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; AC   ABZ77103;
; XX
; DT   07-MAY 2003  (first entry)
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; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:58.
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; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
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; FT                   /mod_base= OTHER
; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag=  b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag=  c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
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; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM, Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Claim 3; Page 95; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 4 A; 6 C; 2 G; 8 T; 0 other;
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;  ABZ77103  Length: 20  October 16, 2003 08:47  Type: N  Check: 5439  ..
abz77103

  Query Match             0.4%;  Score 20;  DB 1;  Length 20;
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  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1401 CAGGATGCTAAAGATGATGA 1420
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Db         20 CAGGATGCTAAAGATGATGA 1


RESULT 55
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; AC   ABZ77104;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:59.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
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; FT                   /mod_base= OTHER
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; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag= c
; FT                   /mod_base= OTHER
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; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS ) ISIS PHARM INC.
; XX
; PI   Crooke RM, Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Claim 3; Page 95; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 6 A; 6 C; 5 G; 3 T; 0 other;
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;  ABZ77104  Length: 20  October 16, 2003 08:47  Type: N  Check: 4964  ..
abz77104

  Query Match             0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
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Qy       1601 AGCAGCTGGTCAGTCTTTGC 1620
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Db         20 AGCAGCTGGTCAGTCTTTGC 1
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; AC   ABZ77105;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:60.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1. .20
; FT                   /*tag=  a
; FT                   /mod_base= OTHER
; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag=  b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag=  c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM,  Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Claim 3; Page 95; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 6 A; 5 C; 4 G; 5 T; 0 other;
;
;  ABZ77105  Length: 20  October 16, 2003 08:47  Type: N  Check: 5377  ..
abz77105

  Query Match             0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1748 ACAGAATCTTCTGGGTAGTC 1767
              ||||||||||||||||||||
Db         20 ACAGAATCTTCTGGGTAGTC 1


RESULT 57
abz77106/c
;  TOIG of: abz77106  check: 5450  from: 1  to: 20
;
; ID   ABZ77106 standard; DNA; 20 BP.
; XX
; AC   ABZ77106;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:61.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1. .20
; FT                   /*tag=  a
; FT                   /mod_base= OTHER
; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag=  b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag=  c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL 2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM,  Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Claim 3; Page 95; 117pp; English.
```

```
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 3 A; 9 C; 0 G; 8 T; 0 other;
;
;  ABZ77106  Length: 20  October 16, 2003 08:47  Type: N  Check: 5450  ..
abz77106

  Query Match              0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1881 GAATGTAAGGATGAGGGAAG 1900
              ||||||||||||||||||||
Db         20 GAATGTAAGGATGAGGGAAG 1


RESULT 58
abz77107/c
;  TOIG of: abz77107  check: 4280  from: 1  to: 20
;
; ID   ABZ77107 standard; DNA; 20 BP.
; XX
; AC   ABZ77107;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:62.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1. .20
; FT                   /*tag=  a
; FT                   /mod_base= OTHER
; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag=  b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag=  c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM, Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Claim 3; Page 95; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8 nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 7 A; 5 C; 8 G; 0 U; 0 other;
;
;  ABZ77107  Length: 20  October 16, 2003 08:47  Type: N  Check: 4280  ..
abz77107

  Query Match              0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1985 CCTTTCTCTCCTGGCTCGGG 2004
              ||||||||||||||||||||
Db         20 CCTTTCTCTCCTGGCTCGGG 1


RESULT 59
abz77108/c
;  TOIG of: abz77108  check: 4505  from: 1  to: 20
;
; ID   ABZ77108 standard; DNA; 20 BP.
; XX
; AC   ABZ77108;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:63.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
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; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1. .20
; FT                   /*tag= a
; FT                   /mod_base= OTHER
; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag= b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag= c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM, Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Claim 3; Page 95; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 5 A; 9 C; 3 G; 3 T; 0 other;
;
;  ABZ77108  Length: 20  October 16, 2003 08:47  Type: N  Check: 4505  ..
abz77108

  Query Match             0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2102 AGTGGTCTCTGCTGGGGAAG 2121
              ||||||||||||||||||||
Db         20 AGTGGTCTCTGCTGGGGAAG 1


RESULT 60
abz77109/c
;  TOIG of: abz77109  check: 4810  from: 1  to: 20
;
; ID   ABZ77109 standard; DNA; 20 BP.
; XX
; AC   ABZ77109;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl CoA desaturase phosphorothioate oligonucleotide SEQ:64.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1. .20
; FT                   /*tag= a
; FT                   /mod_base= OTHER
; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag= b
; FT                   /mod_base= OTHER
; FT                   /note= "2' O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag= c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM, Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Claim 3; Page 95; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
```

```
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 7 A; 5 C; 4 G; 4 T; 0 other;
;
;  ABZ77109  Length: 20  October 16, 2003 08:47  Type: N  Check: 4810  ..
abz77109

  Query Match              0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2281 TGCCATCTTCAGGATATTGG 2300
              ||||||||||||||||||||
Db         20 TGCCATCTTCAGGATATTGG 1


RESULT 61
abz77110/c
;  TOIG of: abz77110  check: 5344  from: 1  to: 20
;
; ID   ABZ77110 standard; DNA; 20 BP.
; XX
; AC   ABZ77110;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:65.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1. .20
; FT                   /*tag=  a
; FT                   /mod_base= OTHER
; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag=  b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag=  c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2' MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM,  Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Claim 3; Page 95; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 4 A; 10 C; 0 G; 6 T; 0 other;
;
;  ABZ77110  Length: 20  October 16, 2003 08:47  Type: N  Check: 5344  ..
abz77110

  Query Match              0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2481 GAGAGGAGGAATTAGTTGGG 2500
              ||||||||||||||||||||
Db         20 GAGAGGAGGAATTAGTTGGG 1


RESULT 62
abz77111/c
;  TOIG of: abz77111  check: 4983  from: 1  to: 20
;
; ID   ABZ77111 standard; DNA; 20 BP.
; XX
; AC   ABZ77111;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:66.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1. .20
; FT                   /*tag=  a
; FT                   /mod_base= OTHER
; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag=  b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag=  c
; FT                   /mod_base= OTHER
; FT                   /note= "2' O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
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; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM, Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Claim 3; Page 95; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 4 A; 7 C; 3 G; 6 T; 0 other;
;
;  ABZ77111  Length: 20  October 16, 2003 08:47  Type: N  Check: 4983  ..
abz77111

  Query Match             0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2541 GCTGAGGGACAGGATCTATA 2560
              ||||||||||||||||||||
Db         20 GCTGAGGGACAGGATCTATA 1


RESULT 63
abz77112/c
;  TOIG of: abz77112  check: 5004  from: 1  to: 20
;
; ID   ABZ77112 standard; DNA; 20 BP.
; XX
; AC   ABZ77112;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:67.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
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; FT                   /*tag= b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16..20
; FT                   /*tag= c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS ) ISIS PHARM INC.
; XX
; PI   Crooke RM, Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Claim 3; Page 95; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 6 A; 8 C; 1 G; 5 T; 0 other;
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;  ABZ77112  Length: 20  October 16, 2003 08:47  Type: N  Check: 5004  ..
abz77112

  Query Match             0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2631 ACTGAGTGAGTTATTGGGAG 2650
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Db         20 ACTGAGTGAGTTATTGGGAG 1


RESULT 64
abz77113/c
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; ID   ABZ77113 standard; DNA; 20 BP.
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; AC   ABZ77113;
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; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:68.
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; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1. .20
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; FT                   /note= "phosphorothioate linkages"
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; FT                   /mod_base= OTHER
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; FT   modified_base   16. .20
; FT                   /*tag=  c
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; XX
; PN   WO2003012031-A2.
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; PD   13-FEB-2003.
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; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS ) ISIS PHARM INC.
; XX
; PI   Crooke RM,  Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Claim 3; Page 95; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 6 A; 7 C; 3 G; 4 T; 0 other;
;
;  ABZ77113  Length: 20  October 16, 2003 08:47  Type: N  Check: 4829  ..
abz77113

  Query Match             0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2826 GGCAGGGTTAGGAATCTCTT 2845
              ||||||||||||||||||||
Db         20 GGCAGGGTTAGGAATCTCTT 1


RESULT 65
abz77114/c
;  TOIG of: abz77114  check: 4832  from: 1  to: 20
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; ID   ABZ77114 standard; DNA; 20 BP.
; XX
; AC   ABZ77114;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:69.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; CS   Homo sapiens.
; OS   Synthetic.
; XX
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; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag=  b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag=  c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM,  Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Claim 3; Page 95; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
```

```
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 6 A; 6 C; 6 G; 2 T; 0 other;
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;  ABZ77114  Length: 20  October 16, 2003 08:47  Type: N  Check: 4892  ..
abz77114

  Query Match              0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2941 CAGGCAGCCTCCTTTGTGTG 2960
              ||||||||||||||||||||
Db         20 CAGGCAGCCTCCTTTGTGTG 1


RESULT 66
abz77115/c
;  TOIG of: abz77115  check: 5271  from: 1  to: 20
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; ID   ABZ77115 standard; DNA; 20 BP.
; XX
; AC   ABZ77115;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:70.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
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; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag=  b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag=  c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM,  Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Claim 3; Page 95; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 5 A; 5 C; 5 G; 5 T; 0 other;
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;  ABZ77115  Length: 20  October 16, 2003 08:47  Type: N  Check: 5271  ..
abz77115

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  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       3051 AGTAGAGCTAGCTGCCACTT 3070
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Db         20 AGTAGAGCTAGCTGCCACTT 1


RESULT 67
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;  TOIG of: abz77116  check: 4444  from: 1  to: 20
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; ID   ABZ77116 standard; DNA; 20 BP.
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; AC   ABZ77116;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:71.
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; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
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; FT                   /mod_base= OTHER
; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag= b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag= c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM, Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Claim 3; Page 95; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 7 A; 8 C; 3 G; 2 T; 0 other;
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;  ABZ77116  Length: 20  October 16, 2003 08:47  Type: N  Check: 4444  ..
abz77116

  Query Match             0.4%;  Score 20;  DB 1;  Length 20;
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  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       3321 CTGCTTACTTGGTGAGGGTG 3340
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Db         20 CTGCTTACTTGGTGAGGGTG 1


RESULT 68
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; AC   ABZ77117;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:72.
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; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
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; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
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; FT                   /mod_base= OTHER
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; FT                   /*tag= b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag= c
; FT                   /mod_base= OTHER
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; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM, Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Claim 3; Page 95; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
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; XX
; SQ   Sequence 20 BP; 4 A; 6 C; 4 G; 6 T; 0 other;
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;  ABZ77117  Length: 20  October 16, 2003 08:47  Type: N  Check: 4791  ..
abz77117

  Query Match             0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       3401 GTTCTCACTGGGAAGAAGCA 3420
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Db         20 GTTCTCACTGGGAAGAAGCA 1


RESULT 69
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;
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; XX
; AC   ABZ77118;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:73.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1. .20
; FT                   /*tag= a
; FT                   /mod_base= OTHER
; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag= b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2' MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag= c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM,  Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Claim 3; Page 95; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearcyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 7 A; 4 C; 5 G; 4 T; 0 other;
;
;  ABZ77118  Length: 20  October 16, 2003 08:47  Type: N  Check: 4992  ..
abz77118

  Query Match             0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       3941 TCATCAGATGCCTGCTTGAT 3960
              ||||| |||||||||||  ||
Db         20 TCATCAGATGCCTGCTTGAT 1


RESULT 70
abz77119/c
;  TOIG of: abz77119  check: 5073  from: 1  to: 20
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; ID   ABZ77119 standard; DNA; 20 BP.
; XX
; AC   ABZ77119;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:74.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
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; FT                   /mod_base= OTHER
; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag= b
; FT                   /mod_base= OTHER
; FT                   /note= "2' O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag= c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
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; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM,  Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Claim 3; Page 95; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 3 A; 8 C; 5 G; 4 T; 0 other;
;
;  ABZ77119  Length: 20  October 16, 2003 08:47  Type: N  Check: 5073  ..
abz77119

  Query Match             0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4052 ATGGCACCTCAGGCTGAGGG 4071
              ||||||||||||||||||||
Db         20 ATGGCACCTCAGGCTGAGGG 1


RESULT 71
abz77120/c
;  TOIG of: abz77120  check: 4610  from: 1  to: 20
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; ID   ABZ77120 standard; DNA; 20 BP.
; XX
; AC   ABZ77120;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:75.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1. .20
; FT                   /*tag=  a
; FT                   /mod_base= OTHER
; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag=  b
; FT                   /mod_base= OTHER
; FT                   /note= "2' O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag=  c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US022676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM,  Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications
; XX
; PS   Claim 3; Page 95; 117pp; English
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8 nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 5 A; 9 C; 2 G; 4 T; 0 other;
;
;  ABZ77120  Length: 20  October 16, 2003 08:47  Type: N  Check: 4610  ..
abz77120

  Query Match             0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4357 GGGCCTGAGTGGAGGATTAT 4376
              ||||||||||||||| ||||
Db         20 GGGCCTGAGTGGAGGATTAT 1


RESULT 72
abz77121/c
;  TOIG of: abz77121  check: 4567  from: 1  to: 20
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; ID   ABZ77121 standard; DNA; 20 BP.
; XX
; AC   ABZ77121;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:76.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1. .20
; FT                   /*tag= a
; FT                   /mod_base= OTHER
; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag= b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag= c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM,  Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Claim 3; Page 95; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 8 A; 6 C; 3 G; 3 T; 0 other;
;
;  ABZ77121  Length: 20  October 16, 2003 08:47  Type: N  Check: 4567  ..
abz77121

  Query Match              0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4431 AGGGCTGCTTTTCTTAAGTG 4450
              ||||||||||||||||||||
Db         20 AGGGCTGCTTTTCTTAAGTG 1


RESULT 73
abz77122/c
;  TOIG of: abz77122  check: 4904  from: 1  to: 20
;
; ID   ABZ77122 standard; DNA; 20 BP.
; XX
; AC   ABZ77122;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:77.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1. .20
; FT                   /*tag= a
; FT                   /mod_base= OTHER
; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag= b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag= c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO US22676.
; XX
; PR   30-JUL-2001; 2001US 0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM,  Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Claim 3; Page 95; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
```

```
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 6 A; 5 C; 6 G; 3 T; 0 other;
;
;  ABZ77122  Length: 20  October 16, 2003 08:47  Type: N  Check: 4904  ..
abz77122

  Query Match             0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4681 ACTGTGCCACTGACTTGCTG 4700
              ||||||||||||||||||||
Db         20 ACTGTGCCACTGACTTGCTG 1


RESULT 74
abz77123/c
;  TOIG of: abz77123  check: 5238  from: 1  to: 20
;
; ID   ABZ77123 standard; DNA; 20 BP.
; XX
; AC   ABZ77123;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:78.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
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; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag=  b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag=  c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM,  Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Claim 3; Page 95; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8 nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 3 A; 7 C; 4 G; 6 T; 0 other;
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;  ABZ77123  Length: 20  October 16, 2003 08:47  Type: N  Check: 5238  ..
abz77123

  Query Match             0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4971 GAAGCGGTGGATAACTAGCC 4990
              ||||||||||:|||:|||.
Db         20 GAAGCGGTGGATAACTAGCC 1


RESULT 75
abz77124/c
;  TOIG of: abz77124  check: 4488  from: 1  to: 20
;
; ID   ABZ77124 standard; DNA; 20 BP.
; XX
; AC   ABZ77124;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:79.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
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; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag=  b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag=  c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM,  Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Claim 3; Page 95; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 9 A; 6 C; 3 G; 2 T; 0 other;
;
;  ABZ77124  Length: 20  October 16, 2003 08:47  Type: N  Check: 4488  ..
abz77124

  Query Match              0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5044 ATGCCTTTTCTGTGATTGGG 5063
              ||||||||||||||||||||
Db         20 ATGCCTTTTCTGTGATTGGG 1


RESULT 76
abz77125/c
;  TOIG of: abz77125  check: 4709  from: 1  to: 20
;
; ID   ABZ77125 standard; DNA; 20 BP.
; XX
; AC   ABZ77125;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:80.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1. .20
; FT                   /*tag=  a
; FT                   /mod_base= OTHER
; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   1. .5
; FT                   /*tag=  b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base   16. .20
; FT                   /*tag=  c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM,  Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Claim 3; Page 95; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC   inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC   given in an example from the present invention.
; XX
; SQ   Sequence 20 BP; 9 A; 6 C; 0 G; 5 T; 0 other;
```

```
;
;  ABZ77125  Length: 20  October 16, 2003 08:47  Type: N  Check: 4709  ..
abz77125

  Query Match              0.4%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5081 TTATGTGGGATATAGTAGTT 5100
              ||||||||||||||||||||
Db         20 TTATGTGGGATATAGTAGTT 1


RESULT 77
aaa33346
;  TOIG of: aaa33346  check: 7461  from: 1  to: 21
;
; ID   AAA33346 standard; DNA; 21 BP.
; XX
; AC   AAA33346;
; XX
; DT   28-JUL-2000  (first entry)
; XX
; DE   Low adenosine antisense oligonucleotide SEQ ID NO:1035.
; XX
; KW   Human; adenosine receptor; low adenosine antisense oligonucleotide;
; KW   phosphorothioate; impaired respiration; inflammation; allergy;
; KW   allergic disease; bronchoconstriction; inhibitor; antiinflammatory;
; KW   antiallergic; antiasthmatic; cytostatic; analgesic; impaired airway;
; KW   lung disease; ischaemic condition; pulmonary vasoconstriction; asthma;
; KW   respiratory distress syndrome; pain; cystic fibrosis; emphysema;
; KW   pulmonary hypertension; chronic obstructive pulmonary disease; COPD;
; KW   cancer; leukaemia; lymphoma; carcinoma; metastasis; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO200009525-A2.
; XX
; PD   24-FEB-2000.
; XX
; PF   03-AUG-1999;   99WO-US17712.
; XX
; PR   03-AUG-1998;   98US-0095212.
; XX
; PA   (UYEC-) UNIV EAST CAROLINA.
; XX
; PI   Nyce JW;
; XX
; DR   WPI; 2000-205971/18.
; XX
; PT   New antisense oligonucleotides useful for treating e.g. pulmonary
; PT   vasoconstriction, inflammation, allergies, asthma, hypertension,
; PT   bronchitis, emphysema, respiratory distress syndrome, ischemia or
; PT   cancers -
; XX
; PS   Claim 18; Page 394; 1343pp; English.
; XX
; CC   The present invention describes a new composition comprising an
; CC   antisense oligonucleotide (ON) with low adenosine (up to 15%), which
; CC   targets nucleic acids involved in bronchoconstriction, allergies, and/or
; CC   inflammation. The ON can have antiinflammatory, antiallergic,
; CC   antiasthmatic, cytostatic and analgesic activities. The compositions are
; CC   useful for the treatment of diseases associated with inflammation,
; CC   impaired airways, including lung disease and diseases whose secondary
; CC   effects afflict the lungs of a subject. They can be used for treating
; CC   e.g. ischaemic conditions, pulmonary vasoconstriction, allergies,
; CC   asthma, impeded respiration, respiratory distress syndrome, pain, cystic
; CC   fibrosis, pulmonary hypertension, emphysema, chronic obstructive
; CC   pulmonary disease (COPD), and cancers such as leukaemias, lymphomas,
; CC   carcinomas, and cancers which may metastasise to the lungs, including
; CC   breast and prostate cancer. The reduction of the adenosine content of
; CC   the ONs reduces side effects. The A-containing ONs break down with the
; CC   release of deoxyadenosine which activates adenosine receptors causing
; CC   bronchoconstriction and inflammation. AAA32313 to AAA35312 represent the
; CC   nucleotide sequences given in the sequence listing from the present
; CC   invention, which correspond to SEQ ID NO:1 to 2815, and then the last
; CC   185 sequences are also called SEQ ID NO:1 to 185, but the sequences
; CC   differ from the previously named sequences. SEQ ID NO:11 to 1680
; CC   (AAA32323 to AAA33992) are specifically claimed ONs from the present
; CC   invention. N.B. Sequences given in the disclosure of the present
; CC   invention do not match up with their corresponding SEQ ID NO: sequences
; CC   given in the sequence listing.
; XX
; SQ   Sequence 21 BP; 0 A; 10 C; 1 G; 10 T; 0 other;
;
;  AAA33346  Length: 21  October 16, 2003 08:46  Type: N  Check: 7461  ..
aaa33346

  Query Match              0.3%;  Score 17.4;  DB 1;  Length 21;
  Best Local Similarity   94.7%;  Pred. No. 0;
  Matches   18;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       5182 TCTCTCTCCCTCTCTCTCCT 5201
              |||| |||||: ||| |
Db          1 TCTCTCTCCCTCTCTCTCCT 19


RESULT 78
aaf19468
;  TOIG of: aaf19468  check: 7461  from: 1  to: 21
;
; ID   AAF19468 standard; DNA; 21 BP.
; XX
; AC   AAF19468;
; XX
; DT   14-MAR-2001  (first entry)
; XX
; DE   Human histidine decarboxylase polynucleotide fragment #1035.
; XX
; KW   Low adenosine antisense oligonucleotide; phosphorothioate; allergy;
; KW   human; airway disorder; bronchoconstriction; lung inflammation;
; KW   surfactant depletion; respiratory; bronchodilator; antiinflammatory;
; KW   immunosuppressive; antiasthmatic; analgesic; hypotensive; cytostatic;
; KW   respiratory obstruction; pulmonary obstruction; impeded respiration;
; KW   surfactant hypoproduction; pulmonary vasoconstriction; asthma; RDS;
; KW   respiratory distress syndrome; pain; cystic fibrosis; allergic rhinitis;
; KW   pulmonary hypertension; emphysema; pulmonary transplantation rejection;
; KW   chronic obstructive pulmonary disease; pulmonary infection; bronchitis;
; KW   cancer; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO200062736-A2.
; XX
; PD   26-OCT-2000.
; XX
; PF   24-MAR-2000; 2000WO-US08020.
; XX
; PR   06-APR-1999;   99US-0127958.
; XX
; PA   (UYEC-) UNIV EAST CAROLINA.
; PA   (NYCE/) NYCE J W.
; XX
; PI   Nyce JW;
; XX
; DR   WPI; 2000-679539/66.
; XX
; PT   Low adenosine (A) content antisense oligonucleotides which do not
; PT   trigger adenosine receptors during metabolism, useful e.g. for treating
; PT   cancers and respiratory obstructions -
; XX
; PS   Claim 14; Page 141; 1592pp; English.
; XX
; CC   The present invention describes low adenosine (A) content antisense
; CC   oligonucleotides and compositions (I) comprising them. In the antisense
; CC   oligonucleotides the A is replaced by a 'Universal' or alternative base.
```

; CC (I) can have respiratory, bronchodilator, antiinflammatory, analgesic,
; CC immunosuppressive, antiasthmatic, hypotensive and cytostatic activities.
; CC The antisense oligonucleotides and (I) can be used to down-regulate the
; CC expression and or activity of target polypeptides associated with
; CC lung/respiratory disorders and malignancies, such as stimulating and
; CC activating peptide factors and transmitters, transcription factors,
; CC immunoglobulins and antibodies, antibody receptors, cytokines and
; CC chemokines, endogenously produced specific and non-specific enzymes,
; CC binding proteins, adhesion molecules and their receptors, cytokine and
; CC chemokine receptors, adenosine receptors, bradykinin receptors, central
; CC nervous system (CNS) and peripheral nervous and non-nervous system
; CC receptors, CNS and peripheral nervous and non-nervous system peptide
; CC transmitters, defensins, growth factors, vasoactive peptides and
; CC receptors, binding proteins and malignancy associated proteins. The
; CC antisense oligonucleotides may be used in this way to treat disorders
; CC including respiratory obstruction (especially pulmonary obstruction
; CC and/or bronchoconstriction) and/or lung inflammation, allergy(ies)
; CC and/or surfactant hypoproduction which are associated with a disease or
; CC condition selected from pulmonary vasoconstriction, inflammation,
; CC allergies, asthma, impeded respiration, respiratory distress syndrome
; CC (RDS), pain, cystic fibrosis (CF), allergic rhinitis (AR), pulmonary
; CC hypertension, emphysema, chronic obstructive pulmonary disease (COPD),
; CC pulmonary transplantation rejection, pulmonary infections, bronchitis,
; CC and/or cancer. AAF18434 to AAF21543 represent human polynucleotide
; CC fragments and antisense oligonucleotides used in the exemplification of
; CC the present invention.
; XX
; SQ Sequence 21 BP; 0 A; 10 C; 1 G; 10 T; 0 other;
;
; AAF19468 Length: 21 October 16, 2003 08:46 Type: N Check: 7461 ..
aaf19468

Query Match 0.3%; Score 17.4; DB 1; Length 21;
Best Local Similarity 94.7%; Pred. No. 0;
Matches 18; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 3182 TCTCTCTCCCTCCCTCTCT 3200
||||||||||||| ||||||
Db 1 TCTCTCTCCCTCTCTCTCT 19

RESULT 79
aat76098
; TOIG of: aat76098 check: 7461 from: 1 to: 21
;
; ID AAT76098 standard; DNA; 21 BP.
; XX
; AC AAT76098;
; XX
; DT 12-SEP-1997 (first entry)
; XX
; DE Human histidine decarboxylase antisense oligonucleotide HUMHDCAS2.
; XX
; KW Asthma; airway epithelium; adenosine free; cystic fibrosis;
; KW chronic obstructive pulmonary disease; bronchitis; ss.
; XX
; OS Synthetic.
; XX
; PN WO9640162-A1.
; XX
; PD 19-DEC-1996.
; XX
; PF 06-JUN-1996; 96WO-US09306.
; XX
; PR 07-JUN-1995; 95US-0474497.
; XX
; PA (UYEC-) UNIV EAST CAROLINA.
; XX
; PI Metzger WJ, Nyce JW;
; XX
; DR WPI; 1997-051871/05.
; XX
; PT Treatment of airway diseases such as asthma - by topically applying
; PT adenosine-free antisense oligonucleotide to airway epithelium of
; PT subject
; XX
; PS Claim 5; Page 26; 71pp; English.
; XX
; CC A method for treating airway disease in a subject has been produced,
; CC which involves the topical administration of an essentially adenosine
; CC free antisense oligonucleotide (ON) to the airway epithelium of the
; CC subject. The present sequence is an antisense oligonucleotide
; CC HUMHDCAS2 specific for the human histidine decarboxylase. The
; CC method can be used to treat airway diseases such as cystic fibrosis,
; CC asthma, chronic obstructive pulmonary disease, bronchitis and other
; CC airway diseases characterised by an inflammatory response. By
; CC eliminating adenosine from the antisense ON, its liberation upon
; CC antisense degradation is prevented, thereby preventing adenosine-
; CC induced bronchoconstriction in patients with hyper-reactive airways.
; XX
; SQ Sequence 21 BP; 0 A; 10 C; 1 G; 10 T; 0 other;
;
; AAT76098 Length: 21 October 16, 2003 08:46 Type: N Check: 7461 ..
aat76098

Query Match 0.3%; Score 17.4; DB 1; Length 21;
Best Local Similarity 94.7%; Pred. No. 0;
Matches 18; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 3182 TCTCTCTCCCTCCCTCTCT 3200
||||||||||||| ||||||
Db 1 TCTCTCTCCCTCTCTCTCT 19

RESULT 80
aax53903
; TOIG of: aax53903 check: 7461 from: 1 to: 21
;
; ID AAX53903 standard; DNA; 21 BP.
; XX
; AC AAX53903;
; XX
; DT 05-JUL-1999 (first entry)
; XX
; DE Histidine decarboxylase receptor antisense oligonucleotide.
; XX
; KW Antisense oligonucleotide; multiple target; antisense treatment;
; KW impaired respiration; inflammation; lung disease;
; KW pulmonary vasoconstriction; inflammation; allergic rhinitis;
; KW acute asthma; allergy; asthma; impeded respiration;
; KW respiratory distress syndrome; pain; cystic fibrosis;
; KW pulmonary hypertension; pulmonary vasoconstriction; emphysema;
; KW chronic obstructive pulmonary disease; leukemia; lymphoma; carcinoma;
; KW colon cancer; breast cancer; lung cancer; pancreatic cancer;
; KW hepatocellular carcinoma; kidney cancer; melanoma; hepatic metastasis;
; KW prostate cancer; ss.
; XX
; OS Synthetic.
; XX
; PN WO9913886-A1.
; XX
; PD 25-MAR-1999.
; XX
; PF 17-SEP-1998; 98WO-US19419.
; XX
; PR 09-JUN-1998; 98US-0093972.
; PR 17-SEP-1997; 97US-0059160.
; XX
; PA (UYEC-) UNIV EAST CAROLINA.
; XX
; PI Nyce JW;
; XX
; DR WPI; 1999-229400/19.
; XX
; PT New antisense oligonucleotides used in treatment of, e.g. pulmonary
; PT vasoconstriction

```
; XX
; PS   Disclosure; Page 45; 120pp; English.
; XX
; CC   The specification describes antisense oligonucleotides (AAX52869-X55271)
; CC   directed against at least 2 mRNAs selected from target genes, coding and
; CC   non-coding regions of RNAs corresponding to target genes, gene
; CC   initiation codons, genomic flanking regions, intron-exon borders, the
; CC   5'-end, the 3'-end and the juxta-section between coding and non-coding
; CC   regions and all segments of RNAs encoding proteins associated with one
; CC   or more diseases, conditions or mixtures. The antisense oligonucleotides
; CC   may be derived from sequences AAX55272-74. These multiple target
; CC   oligonucleotides (specifically AAX55180-271) can be used for the
; CC   antisense treatment of diseases and conditions. Typical diseases and
; CC   conditions are those associated with impaired respiration and
; CC   inflammation, including lung diseases, pulmonary vasoconstriction,
; CC   inflammation, allergic rhinitis, acute asthma, allergies, asthma, impeded
; CC   respiration, respiratory distress syndrome, pain, cystic fibrosis,
; CC   pulmonary hypertension, pulmonary vasoconstriction, emphysema, chronic
; CC   obstructive pulmonary disease (COPD), and cancers such as leukemias,
; CC   lymphomas, carcinomas e.g. colon cancer, breast cancer, lung cancer,
; CC   pancreatic cancer, hepatocellular carcinoma, kidney cancer, melanoma,
; CC   hepatic metastases, as well as all types of cancers which may metastasize
; CC   or have metastasized to the lungs, including breast and prostate cancer.
; XX
; SQ   Sequence 21 BP; 0 A; 10 C; 1 G; 10 T; 0 other;
;
;  AAX53903  Length: 21  October 16, 2003 08:46  Type: N  Check: 7461  ..
aax53903

  Query Match             0.3%;  Score 17.4;  DB 1;  Length 21;
  Best Local Similarity   94.7%;  Pred. No. 0;
  Matches   18;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       3182 TCTCTCTCCCTCCCTCTCT 3200
                ||||||||||||| ||||||
Db             1 TCTCTCTCCCTCTCTCTCT 19


RESULT 81
aaa25448
;  TOIG of: aaa25448  check: 2807  from: 1  to: 17
;
; ID   AAA25448 standard; DNA; 17 BP.
; XX
; AC   AAA25448;
; XX
; DT   19-JUL-2000  (first entry)
; XX
; DE   Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1946.
; XX
; KW   Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
; KW   hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
; KW   gene expression modification; cancer; phosphorothioate; endonuclease;
; KW   anticancer; breast cancer; endometrium cancer; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO9954459-A2.
; XX
; PD   28-OCT-1999.
; XX
; PF   19-APR-1999;   99WO-US08547.
; XX
; PR   20-APR-1998;   98US-0082404.
; PR   23-JUN-1998;   98US-0103636.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC.
; XX
; PI   Thompson JD,  Beigelman L,  McSwiggen JA,  Karpeisky A,  Bellon L;
; PI   Reynolds M,  Zwick M,  Jarvis T,  Woolf T,  Haeberli P;
; PI   Matulic-Adamic J;
; XX
; DR   WPI; 2000-013248/01.
; XX
; PT   New nucleic acids that interact, and optionally cleave, target
; PT   sequences, used to treat cancer
; XX
; PS   Claim 77; Page 79; 148pp; English.
; XX
; CC   The present invention describes nucleic acids (A) that interact stably
; CC   with a target sequence and contain at least one phosphoro(di)thioate
; CC   link, having endonuclease activity. (A), and more generally any
; CC   catalytic nucleic acid (A') that modulates expression of the oestrogen
; CC   receptor gene, are used to treat cancer (particularly of breast or
; CC   endometrium), in vivo or by transforming cells ex vivo and implanting
; CC   treated cells, or for other conditions associated with levels of
; CC   oestrogen receptor. Because of the high selectivity for targeted RNA, (A)
; CC   can also be used to correlate inhibition of gene expression with
; CC   alterations in phenotype, particularly for identification of therapeutic
; CC   targets, and as research reagents (for RNA, in the  same way that
; CC   restriction endonucleases are used with DNA). The combination of
; CC   modifications in (A) improves resistance to nucleases, binding affinity
; CC   and/or activity. AAA23603 to AAA24747 represent oestrogen receptor
; CC   hammerhead ribozyme sequences, and AAA24748 to AAA25992 represent their
; CC   corresponding target sequences. AAA25993 to AAA26105 represent oestrogen
; CC   receptor hairpin ribozyme sequences, and AAA26107 to AAA26218 represent
; CC   their corresponding target sequences. AAA26219 to AAA26271 represent
; CC   other ribozyme sequences and antisense oligonucleotides used in the
; CC   exemplification of the present invention.
; XX
; SQ   Sequence 17 BP; 1 A; 0 C; 1 G; 15 T; 0 other;
;
;  AAA25448  Length: 17  October 16, 2003 08:46  Type: N  Check: 2807  ..
aaa25448

  Query Match             0.3%;  Score 17;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   17;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4499 AGTTTTTTTTTTTTTTT 4515
                |||||||||||||||||
Db          1 AGTTTTTTTTTTTTTTT 17


RESULT 82
aax82721
;  TOIG of: aax82721  check: 2618  from: 1  to: 17
;
; ID   AAX82721 standard; DNA; 17 BP.
; XX
; AC   AAX82721;
; XX
; DT   10-NOV-2000  (first entry)
; XX
; DE   Human IgA nephropathy-associated cDNA primer #62.
; XX
; KW   IgA nephropathy associated protein; diagnosis; treatment; antisense;
; KW   human; primer; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO9963085-A1.
; XX
; PD   09-DEC-1999.
; XX
; PF   28-MAY-1999;   99WO-JP02855.
; XX
; PR   02-JUN-1998;   98JP-0152603.
; XX
; PA   (KYOW ) KYOWA HAKKO KOGYO KK.
; XX
; PI   Ishiwata T,  Sakurada M,  Kawabata A,  Nakagawa S,  Nishi T,  Kuga T;
; PI   Sawada S,  Takei M,  Shibata K,  Furuya A;
; XX
; DR   WPI; 2000-097328/08.
; XX
```

```
; PT   DNA sequences preferentially expressed in IgA nephropathy patients,
; PT   proteins encoded by them, and antibodies to those proteins -
; XX
; PS   Claim 3; Page 170; 180pp; Japanese.
; XX
; CC   This invention describes novel DNA sequences preferentially expressed in
; CC   IgA nephropathy patients, and DNA sequences stringently hybridizing to
; CC   them. Independent claims cover diagnostic reagents for IgA nephropathy
; CC   incorporating the antisense sequences; the treatment of IgA nephropathy
; CC   using the antisense sequences for mRNA inhibition; proteins associated
; CC   with IgA nephropathy, containing sequences encoded by the DNA sequences;
; CC   antibodies recognizing these proteins; the production of the proteins
; CC   by culture of host cells transformed with DNA encoding them; diagnostic
; CC   reagents for IgA nephropathy containing the antibodies; and compositions
; CC   for the treatment of IgA nephropathy which contain the antibodies. The
; CC   products of the invention can be used for the diagnosis and treatment of
; CC   IgA nephropathy. This sequence represents a primer used in the isolation
; CC   and identification of the human IgA nephropathy-associated proteins
; CC   described in the method of the invention.
; XX
; SQ   Sequence 17 BP; 0 A; 0 C; 2 G; 15 T; 0 other;
;
;  AAX82721  Length: 17  October 16, 2003 08:46  Type: N  Check: 2618  ..
aax82721

  Query Match             0.3%;  Score 17;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   17;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4500 GTTTTTTTTTTTTTTTG 4516
              |||||||||||||||||
Db          1 GTTTTTTTTTTTTTTTG 17


RESULT 83
abz77049
;  TOIG of: abz77049  check: 585  from: 1  to: 17
;
; ID   ABZ77049 standard; DNA; 17 BP.
; XX
; AC   ABZ77049;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase forward PCR primer SEQ ID NO:4.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; chromosome 10;
; KW   enzyme; PCR primer; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM,  Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Example 13; Page 92; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8 nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a PCR primer for human
; CC   stearoyl-CoA desaturase, which is used in an example from the present
; CC   invention.
; XX
; SQ   Sequence 17 BP; 4 A; 6 C; 5 G; 2 T; 0 other;
;
;  ABZ77049  Length: 17  October 16, 2003 08:46  Type: N  Check: 585  ..
abz77049

  Query Match             0.3%;  Score 17;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   17;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        213 GATCCCGGCATCCGAGA 229
              |||||||||||||||||
Db          1 GATCCCGGCATCCGAGA 17


RESULT 84
aav15104
;  TOIG of: aav15104  check: 6095  from: 1  to: 20
;
; ID   AAV15104 standard; DNA; 20 BP.
; XX
; AC   AAV15104;
; XX
; DT   20-MAY-1998  (first entry)
; XX
; DE   Human VEGF antisense oligonucleotide U0370T-S.
; XX
; KW   Human; vascular endothelial cell growth factor; VEGF; diagnosis;
; KW   antisense oligonucleotide; ss.
; XX
; OS   Synthetic.
; OS   Homo sapiens.
; XX
; PN   JP10052285-A.
; XX
; PD   24-FEB-1998.
; XX
; PF   20-MAY-1997;   97JP-0129767.
; XX
; PR   23-MAY-1996;   96JP-0128192.
; XX
; PA   (TOAG ) TOA GOSEI CHEM IND LTD.
; XX
; DR   WPI; 1998-200633/18.
; XX
; PT   Preparation of anti-sense nucleic acid - by assigning numerical
; PT   value to target mRNA region and preparing new molecule with nucleic
; PT   acid complementary to sequence with low value
; XX
; PS   Example 3; Page 9; 19pp; Japanese.
```

```
; XX
; CC   The present sequence represents an antisense oligonucleotide for human
; CC   derived vascular endothelial cell growth factor (VEGF), used in an
; CC   example of the present invention. The present invention describes the
; CC   preparation of an antisense nucleic acid (ANA). The method comprises:
; CC   (a) using an mRNA sequence of varying regions in which a numerical value
; CC   (NV) is assigned to a target region, where the size of NV depends on the
; CC   possibility of forming a truly complementary double strand (DS) between
; CC   two regions, and (b) preparing ANA with a nucleic acid containing a base
; CC   sequence which is truly complementary to a sequence which has a low NV,
; CC   where NV assigned to the ability to form DS is based on the difference
; CC   of the complementary base sequence to the target. ANA can be used for
; CC   the preparation of diagnostic and therapeutic agents. The method can
; CC   easily predict ANA target site, therefore enabling easy and rapid
; CC   preparation of ANA.
; XX
; SQ   Sequence 20 BP; 1 A; 8 C; 1 G; 10 T; 0 other;
;
;  AAV15104  Length: 20  October 16, 2003 08:46  Type: N  Check: 6095  ..
aav15104

  Query Match              0.3%;  Score 17;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   17;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2263 TCTTTCCTCTTTCTGCT 2279
              |||||||||||||||||
Db          4 TCTTTCCTCTTTCTGCT 20


RESULT 85
aax15599/c
;  TOIG of: aax15599  check: 4588  from: 1  to: 20
;
; ID   AAX15599 standard; cDNA to mRNA; 20 BP.
; XX
; AC   AAX15599;
; XX
; DT   07-MAY-1999  (first entry)
; XX
; DE   Fragment of upstream sequence of coding region for VEGF.
; XX
; KW   Vascular endothelial cell growth factor; VEGF; antisense oligonucleotide;
; KW   solid tumor growth; anticancer agent; rheumatic arthritis;
; KW   diabetic retinitis; ss.
; XX
; OS   Unidentified.
; XX
; PN   JP11042091-A.
; XX
; PD   16-FEB-1999.
; XX
; PF   25-JUL-1997;   97JP-0213838.
; XX
; PR   25-JUL-1997;   97JP-0213838.
; XX
; PA   (TOAG ) TOA GOSEI CHEM IND LTD.
; XX
; DR   WPI; 1999-197823/17.
; XX
; PT   An antisense nucleic acid compound against vascular endothelial cell
; PT   growth factor (VEGF) - useful as an anticancer agent, and for
; PT   treatment of rheumatic arthritis and diabetic retinitis
; XX
; PS   Example 2; Page 11; 16pp; English.
; XX
; CC   The present sequence represents the a fragment of the upstream
; CC   sequence of the coding region for vascular endothelial cell
; CC   growth factor (VEGF). Antisense oligonucleotides targeted to
; CC   this region inhibit at least 50 % of VEGF expression by the cell.
; CC   The antisense oligonucleotides can inhibit the growth of solid
; CC   tumor and are useful as anticancer agents and for treating rheumatic
; CC   arthritis and diabetic retinitis.
; XX
; SQ   Sequence 20 BP; 10 A; 1 C; 8 G; 1 T; 0 other;
;
;  AAX15599  Length: 20  October 16, 2003 08:46  Type: N  Check: 4588  ..
aax15599

  Query Match              0.3%;  Score 17;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   17;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2263 TCTTTCCTCTTTCTGCT 2279
              |||||||||||||||||
Db         17 TCTTTCCTCTTTCTGCT 1


RESULT 86
aax15764
;  TOIG of: aax15764  check: 6095  from: 1  to: 20
;
; ID   AAX15764 standard; cDNA to mRNA; 20 BP.
; XX
; AC   AAX15764;
; XX
; DT   07-MAY-1999  (first entry)
; XX
; DE   Antisense oligonucleotide targeted to upstream sequence of VEGF.
; XX
; KW   Vascular endothelial cell growth factor; VEGF; antisense oligonucleotide;
; KW   solid tumor growth; anticancer agent; rheumatic arthritis;
; KW   diabetic retinitis; ss.
; XX
; OS   Synthetic.
; XX
; PN   JP11042091-A.
; XX
; PD   16-FEB-1999.
; XX
; PF   25-JUL-1997;   97JP-0213838.
; XX
; PR   25-JUL-1997;   97JP-0213838.
; XX
; PA   (TOAG ) TOA GOSEI CHEM IND LTD.
; XX
; DR   WPI; 1999-197823/17.
; XX
; PT   An antisense nucleic acid compound against vascular endothelial cell
; PT   growth factor (VEGF) - useful as an anticancer agent, and for
; PT   treatment of rheumatic arthritis and diabetic retinitis
; XX
; PS   Example 1; Page 7; 16pp; English.
; XX
; CC   AAX15764-81 represent antisense oligonucleotides targeted to the
; CC   upstream sequence of the coding region for vascular endothelial cell
; CC   growth factor (VEGF). Antisense oligonucleotides targeted to
; CC   this region inhibit at least 50 % of VEGF expression by the cell.
; CC   The antisense oligonucleotides can inhibit the growth of solid
; CC   tumor and are useful as anticancer agents and for treating rheumatic
; CC   arthritis and diabetic retinitis.
; XX
; SQ   Sequence 20 BP; 1 A; 8 C; 1 G; 10 T; 0 other;
;
;  AAX15764  Length: 20  October 16, 2003 08:46  Type: N  Check: 6095  ..
aax15764

  Query Match              0.3%;  Score 17;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   17;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2263 TCTTTCCTCTTTCTGCT 2279
              |||||||||||||||||
Db          4 TCTTTCCTCTTTCTGCT 20
```

```
RESULT 87
abt34199
;  TOIG of: abt34199  check: 4559  from: 1  to: 20
;
; ID   ABT34199 standard; DNA; 20 BP.
; XX
; AC   ABT34199;
; XX
; DT   12-JUN-2003  (first entry)
; XX
; DE   Mouse short heterodimer partner-1 expression oligo SEQ ID No 74.
; XX
; KW   Antiarteriosclerotic; cardiant; vasotropic; antiinfective; cytostatic;
; KW   antiinflammatory; inhibitor; antisense gene therapy; atherosclerosis;
; KW   short heterodimer partner-1; abnormal; lipid; cholesterol metabolism;
; KW   cardiovascular disease; infection; inflammation; tumour formation; mouse;
; KW   antisense; ds.
; XX
; OS   Unidentified.
; XX
; PN   WO2003012033-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   17-JUL-2002; 2002WO-US23245.
; XX
; PR   31-JUL-2001; 2001US-0919197.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM,  Graham MJ;
; XX
; DR   WPI; 2003-248161/24.
; XX
; PT   New antisense oligonucleotide targeted to a nucleic acid encoding short
; PT   heterodimer partner-1, useful for treating diseases involving abnormal
; PT   lipid or cholesterol metabolism, e.g atherosclerosis or cardiovascular
; PT   diseases -
; XX
; PS   Claim 3; Page 95; 121pp; English.
; XX
; CC   The invention relates to a novel compound of 8 - 50 nucleobases in length
; CC   targeted to a nucleic acid molecule encoding a short heterodimer
; CC   partner-1. The novel compound specifically hybridizes with a nucleic acid
; CC   molecule encoding the short heterodimer partner-1, and inhibits the
; CC   expression of the nucleic acid molecule. The compound, and a composition
; CC   comprising it are useful for treating a disease or condition associated
; CC   with the short heterodimer partner-1, particularly a condition involving
; CC   abnormal lipid or cholesterol metabolism such as atherosclerosis or a
; CC   cardiovascular disease. They are also useful in research and diagnostics
; CC   for modulating the expression of short heterodimer partner-1. They can
; CC   also be useful prophylactically in preventing or delaying infection,
; CC   inflammation or tumour formation. This polynucleotide sequence represents
; CC   a mouse antisense oligo relating to the heterodimer partner-1 of the
; CC   invention.
; XX
; SQ   Sequence 20 BP; 4 A; 9 C; 5 G; 2 T; 0 other;
;
;  ABT34199  Length: 20  October 16, 2003 08:46  Type: N  Check: 4559  ..
abt34199

  Query Match             0.3%;  Score 16.8;  DB 1;  Length 20;
  Best Local Similarity   90.0%;  Pred. No. 0;
  Matches   18;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        189 CGGAGCCTCAGCCCCCTGGA 208
              ||||||||||||||| ||| ||
Db          1 CGGAGCCTCAGCCACCTCGA 20


RESULT 88
abz59435
;  TOIG of: abz59435  check: 4671  from: 1  to: 20
;
; ID   ABZ59435 standard; DNA; 20 BP.
; XX
; AC   ABZ59435;
; XX
; DT   17-APR-2003  (first entry)
; XX
; DE   Human src-c chimeric phosphorothioate oligonucleotide SEQ ID NO:56.
; XX
; KW   Human; src-c; tyrosine kinase; src-c inhibitor; cytostatic; osteopathic;
; KW   antiinflammatory; antibacterial; antisense therapy; vaccine; cancer;
; KW   antisense oligonucleotide; aberrant bone remodeling; breast cancer;
; KW   hyperproliferative disorder; pancreatic cancer; lung cancer; tumour;
; KW   ovarian cancer; oesophageal cancer; neuroblastoma; retinoblastoma;
; KW   Kaposi's sarcoma; infection; inflammation; tumour formation;
; KW   phosphorothioate; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1..5
; FT                   /*tag= a
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl gapmer (2'-MOE wing)"
; FT   modified_base   1..20
; FT                   /*tag= b
; FT                   /mod_base= OTHER
; FT                   /note= "phosphorothioate linkages"
; FT   modified_base   16..20
; FT                   /*tag= c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-O-methoxyethyl gapmer (2'-MOE wing)"
; XX
; PN   WO200295053-A2.
; XX
; PD   28-NOV-2002.
; XX
; PF   16-MAY-2002; 2002WO-US15684.
; XX
; PR   18-MAY-2001; 2001US-0860473.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Bennett FC,  Watt AT;
; XX
; DR   WPI; 2003-120806/11.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding
; PT   src-c, useful for diagnosing, treating or preventing diseases
; PT   associated with the expression of src-c, e.g. cancer or inflammation,
; PT   and in research applications -
; XX
; PS   Claim 3; Page 89; 137pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding a 5'UTR, 3'UTR,
; CC   coding region, intron region, exon region, stop codon, intron:exon
; CC   junction, exon:exon junction, or 5' mRNA variant of src-c, and which
; CC   specifically hybridises with and inhibits the expression of src-c. (I)
; CC   have cytostatic, antiinflammatory, osteopathic and antibacterial
; CC   activities, and can be used in antisense therapy and in vaccines. The
; CC   antisense compounds (I) can be used for modulating the expression of
; CC   src-c and for treating diseases or conditions associated with expression
; CC   of src-c, e.g. aberrant bone remodeling or hyperproliferative disorders,
; CC   particularly cancer, such as breast cancer, pancreatic cancer, lung
; CC   cancer, ovarian cancer, oesophageal cancer, neuroblastoma, retinoblastoma
; CC   or Kaposi's sarcoma. (I) are also useful for diagnostics, therapeutics,
; CC   prophylaxis, e.g. to prevent or delay infection, inflammation or tumour
; CC   formation, as research reagents and kits, and in distinguishing between
; CC   functions of various members of a biological pathway. The present
; CC   sequence represents a human src-c antisense chimeric phosphorothioate
; CC   oligonucleotide, which is used in an example from the present invention.
```

```
; XX
; SQ   Sequence 20 BP; 3 A; 5 C; 9 G; 3 T; 0 other;
;
;  ABZ59435  Length: 20  October 16, 2003 08:46  Type: N  Check: 4671  ..
abz59435

  Query Match             0.3%;  Score 16.8;  DB 1;  Length 20;
  Best Local Similarity   90.0%;  Pred. No. 0;
  Matches   18;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       3229 TGTTGAGCCAGTGGGCCAGC 3248
              || ||||| ||||||||||
Db          1 TGCTGAGCGAGTGGGCCAGC 20


RESULT 89
acc44056/c
;  TOIG of: acc44056  check: 5217  from: 1  to: 20
;
; ID   ACC44056 standard; DNA; 20 BP.
; XX
; AC   ACC44056;
; XX
; DT   30-MAY-2003  (first entry)
; XX
; DE   Oligo ISIS 124647 for CD40 ligand gene expression inhibition.
; XX
; KW   ss; cytostatic; antiinflammatory; immunomodulator; antisense;
; KW   gene therapy; human; CD40 ligand; phosphorothioate; 2'MOE wings;
; KW   cancer; autoimmune disorder; inflammatory disorder; apoptosis.
; XX
; OS   Homo sapiens.
; XX
; FH   Key             Location/Qualifiers
; FT   misc_difference 1. .20
; FT                   /*tag=  a
; FT                   /note= "contains phosphorothioate internucleotide
; FT                          bonds in the backbone replacing phosphodiester
; FT                          internucleotide bonds"
; FT   modified_base   1. .5
; FT                   /*tag=  b
; FT                   /mod_base= "2'-O-methoxyethyl nucleotides"
; FT   modified_base   16. .20
; FT                   /*tag=  c
; FT                   /mod_base= "2'-O-methoxyethyl nucleotides"
; FT   modified_base   1. .20
; FT                   /*tag=  d
; FT                   /note= "all cytidine nucleotides are 5 methylcytidine"
; XX
; PN   WO2003008433-A1.
; XX
; PD   30-JAN-2003.
; XX
; PF   15-JUL-2002; 2002WO-US22635.
; XX
; PR   18-JUL-2001; 2001US-0909595.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Bennett CF,  Baker BF,  Wyatt JR,  Davis SE;
; XX
; DR   WPI; 2003-239305/23.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding a
; PT   CD40 ligand, useful in diagnostic and research applications, or for
; PT   treating diseases associated with expression of CD40 ligand, e.g.
; PT   cancer or autoimmune disorder  -
; XX
; PS   Claim 3; Page 79; 108pp; English.
; XX
; CC   The invention relates to novel antisense oligonucleotide targeted to
; CC   the human CD40 ligand gene. The oligonucleotides contain either
; CC   phosphorothioate internucleotide bonds replacing the usual phosphodiester
; CC   internucleotide bonds or have a peptide amide backbone replacing the
; CC   sugar phosphate backbone. The nucleotides flanking the central 10
; CC   nucleotides have 2'-methoxyethyl nucleotides (2'MOE wings) and the
; CC   cytidine nucleotides are all 5-methylcytidines. The antisense compounds
; CC   are useful for modulating the expression of CD40 ligand and for treating
; CC   diseases or conditions associated with expression of CD40 ligand, e.g.
; CC   cancer, autoimmune disorder, inflammatory disorder, or a disease or
; CC   condition arising from aberrant apoptosis. The antisense compounds are
; CC   also useful for diagnostics, therapeutics, prophylaxis, e.g. to prevent
; CC   or delay infection, inflammation or tumor formation, as research reagents
; CC   and kits, and in distinguishing between functions of various members of
; CC   a biological pathway. Oligonucleotides ACC44014-ACC44091 represent the
; CC   antisense oligonucleotides of the invention to inhibit expression of
; CC   the human CD40 ligand gene.
; XX
; SQ   Sequence 20 BP; 9 A; 3 C; 2 G; 6 T; 0 other;
;
;  ACC44056  Length: 20  October 16, 2003 08:47  Type: N  Check: 5217  ..
acc44056

  Query Match             0.3%;  Score 16.8;  DB 1;  Length 20;
  Best Local Similarity   90.0%;  Pred. No. 0;
  Matches   18;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       4482 AATGTACTTTGATTTATAAGT 4501
              |||| ||||||||||||| |||
Db         20 AATGCATTTGATTTATCAGT 1


RESULT 90
aat86582
;  TOIG of: aat86582  check: 7934  from: 1  to: 21
;
; ID   AAT86582 standard; DNA; 21 BP.
; XX
; AC   AAT86582;
; XX
; DT   25-MAR-1998  (first entry)
; XX
; DE   Phosphorothioate oligonucleotide #1.
; XX
; KW   Phosphorothioate oligonucleotide; dimeric phosphoramidite synthon;
; KW   thioester; DNA synthesis; antisense oligonucleotide; gene therapy;
; KW   ss.
; XX
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   misc_difference 1. .21
; FT                   /*tag=  a
; FT                   /note= "Phosphorothioate linkages between alternate
; FT                          nucleotides (1 and 2, 3 and 4 etc.)"
; XX
; PN   WO9729116-A1.
; XX
; PD   14-AUG-1997.
; XX
; PF   06-FEB-1997;  97WO-GB00327.
; XX
; PR   06-FEB-1996;  96GB-0002326.
; XX
; PA   (CRUA ) CRUACHEM LTD.
; XX
; PI   Rao MV,  Reese CB;
; XX
; DR   WPI; 1997-415230/38.
; XX
; PT   Solid phase synthesis of phosphoro:thioate oligo:nucleotide(s) using
; PT   new dimeric synthon(s) - useful as anti:sense molecules for
; PT   inhibiting gene expression
; XX
; PS   Example 3; Page 20; 38pp; English.
; XX
```

; CC The present sequence represents a phosphorothioate oligonucleotide which
; CC was prepared by solid phase synthesis. The method comprises adding at
; CC least one dimeric phosphoramidite synthon, optionally having a protected
; CC thioester group in its internucleotide link, during the synthesis cycle.
; CC These novel dimeric phosphoramidite synthons are used as antisense
; CC molecules for inhibition of gene expression. The method gives increased
; CC yields of the phosphorothiate oligonucleotide (since fewer cycles are
; CC needed) and facilitates separation of impurities (greater difference
; CC in size compared with use of monomeric synthons).
; XX
; SQ Sequence 21 BP; 0 A; 10 C; 0 G; 11 T; 0 other;
;
; AAT86582 Length: 21 October 16, 2003 08:46 Type: N Check: 7534 ..
aat86582

Query Match 0.3%; Score 16.8; DB 1; Length 21;
Best Local Similarity 90.0%; Pred. No. 0;
Matches 18; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 3182 TCTCTCTCCCTCCCTCTCTC 3201
||||||||| ||| |||||||
Db 1 TCTCTCTCTCTCTCTCTCTC 20

RESULT 91
aat86583
; TOIG of: aat86583 check: 7305 from: 1 to: 21
;
; ID AAT86583 standard; DNA; 21 BP.
; XX
; AC AAT86583;
; XX
; DT 25-MAR-1998 (first entry)
; XX
; DE Phosphorothioate oligonucleotide #2.
; XX
; KW Phosphorothioate oligonucleotide; dimeric phosphoramidite synthon;
; KW thioester; DNA synthesis; antisense oligonucleotide; gene therapy;
; KW ss.
; XX
; OS Synthetic.
; XX
; FH Key Location/Qualifiers
; FT misc_difference 1. .21
; FT /*tag= a
; FT /note= "Phosphorothioate linkages between alternate
; FT nucleotides (1 and 2, 3 and 4 etc.)"
; XX
; PN WO9729116-A1.
; XX
; PD 14-AUG-1997.
; XX
; PF 06-FEB-1997; 97WO-GB00327.
; XX
; PR 06-FEB-1996; 96GB-0002326.
; XX
; PA (CRUA-) CRUACHEM LTD.
; XX
; PI Rao MV, Reese CB;
; XX
; DR WPI; 1997-415290/38.
; XX
; PT Solid phase synthesis of phosphoro:thioate oligo:nucleotide(s) using
; PT new dimeric synthon(s) - useful as anti:sense molecules for
; PT inhibiting gene expression
; XX
; PS Example 3; Page 25; 38pp; English.
; XX
; CC The present sequence represents a phosphorothioate oligonucleotide which
; CC was prepared by solid phase synthesis. The method comprises adding at
; CC least one dimeric phosphoramidite synthon, optionally having a protected
; CC thioester group in its internucleotide link, during the synthesis cycle.
; CC These novel dimeric phosphoramidite synthons are used as antisense
; CC molecules for inhibition of gene expression. The method gives increased
; CC yields of the phosphorothiate oligonucleotide (since fewer cycles are
; CC needed) and facilitates separation of impurities (greater difference
; CC in size compared with use of monomeric synthons).
; XX
; SQ Sequence 21 BP; 1 A; 10 C; 0 G; 10 T; 0 other;
;
; AAT86583 Length: 21 October 16, 2003 08:46 Type: N Check: 7305 ..
aat86583

Query Match 0.3%; Score 16.8; DB 1; Length 21;
Best Local Similarity 90.0%; Pred. No. 0;
Matches 18; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 3181 CTCTCTCTCCCTCCCTCTCT 3200
||||||||| ||| |||||
Db 1 CTCTCTCTCTCTCTCTCTCT 20

RESULT 92
aaa25447
; TOIG of: aaa25447 check: 2775 from: 1 to: 17
;
; ID AAA25447 standard; DNA; 17 BP
; XX
; AC AAA25447;
; XX
; DT 19-JUL-2000 (first entry)
; XX
; DE Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1945.
; XX
; KW Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
; KW hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
; KW gene expression modification; cancer; phosphorothioate; endonuclease;
; KW anticancer; breast cancer; endometrium cancer; ss.
; XX
; OS Homo sapiens.
; XX
; PN WO9954459-A2.
; XX
; PD 28-OCT-1999.
; XX
; PF 19-APR-1999; 99WO-US08547.
; XX
; PR 20-APR-1998; 98US-0082404.
; PR 23-JUN-1998; 98US-0103636.
; XX
; PA (RIBO-) RIBOZYME PHARM INC.
; XX
; PI Thompson JD, Beigelman L, McSwiggen JA, Karpeisky A, Bellon L;
; PI Reynolds M, Zwick M, Jarvis T, Woolf T, Haeberli P;
; PI Matulic-Adamic J;
; XX
; DR WPI; 2000-013248/01.
; XX
; PT New nucleic acids that interact, and optionally cleave, target
; PT sequences, used to treat cancer
; XX
; PS Claim 77; Page 79; 148pp; English.
; XX
; CC The present invention describes nucleic acids (A) that interact stably
; CC with a target sequence and contain at least one phosphoro(di)thioate
; CC link, having endonuclease activity. (A), and more generally any
; CC catalytic nucleic acid (A') that modulates expression of the oestrogen
; CC receptor gene, are used to treat cancer (particularly of breast or
; CC endometrium), in vivo or by transforming cells ex vivo and implanting
; CC treated cells, or for other conditions associated with levels of
; CC oestrogen receptor. Because of the high selectivity for targeted RNA, (A)
; CC can also be used to correlate inhibition of gene expression with
; CC alterations in phenotype, particularly for identification of therapeutic
; CC targets, and as research reagents (for RNA, in the same way that
; CC restriction endonucleases are used with DNA). The combination of
; CC modifications in (A) improves resistance to nucleases, binding affinity

```
; CC   and/or activity. AAA23503 to AAA24747 represent oestrogen receptor
; CC   hammerhead ribozyme sequences, and AAA24748 to AAA25992 represent their
; CC   corresponding target sequences. AAA25993 to AAA26105 represent oestrogen
; CC   receptor hairpin ribozyme sequences, and AAA26107 to AAA26218 represent
; CC   their corresponding target sequences. AAA26219 to AAA26271 represent
; CC   other ribozyme sequences and antisense oligonucleotides used in the
; CC   exemplification of the present invention.
; XX
; SQ   Sequence 17 BP; 1 A; 0 C; 1 G; 15 T; 0 other;
;
;  AAA25447  Length: 17  October 16, 2003 08:46  Type: N  Check: 2775  ..
aaa25447

  Query Match              0.3%;  Score 16;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   16;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4499 AGTTTTTTTTTTTTTT 4514
              ||||||||||||||||
Db          2 AGTTTTTTTTTTTTTT 17


RESULT 93
aaa25449
;  TOIG of: aaa25449  check: 2839  from: 1  to: 17
;
; ID   AAA25449 standard; DNA; 17 BP.
; XX
; AC   AAA25449;
; XX
; DT   19-JUL-2000  (first entry)
; XX
; DE   Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1947.
; XX
; KW   Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
; KW   hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
; KW   gene expression modification; cancer; phosphorothioate; endonuclease;
; KW   anticancer; breast cancer; endometrium cancer; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO9954459-A2.
; XX
; PD   28-OCT-1999.
; XX
; PF   19-APR-1999;   99WO-US08547.
; XX
; PR   20-APR-1998;   98US-0082404.
; PR   23-JUN-1998;   98US-0103636.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC.
; XX
; PI   Thompson JD,  Beigelman L,  McSwiggen JA,  Karpeisky A,  Bellon L;
; PI   Reynolds M,  Zwick M,  Jarvis T,  Woolf T,  Haeberli P;
; PI   Matulic-Adamic J;
; XX
; DR   WPI; 2000-013248/01.
; XX
; PT   New nucleic acids that interact, and optionally cleave, target
; PT   sequences, used to treat cancer  -
; XX
; PS   Claim 77; Page 79; 148pp; English.
; XX
; CC   The present invention describes nucleic acids (A) that interact stably
; CC   with a target sequence and contain at least one phosphoro(di)thioate
; CC   link, having endonuclease activity. (A), and more generally any
; CC   catalytic nucleic acid (A') that modulates expression of the oestrogen
; CC   receptor gene, are used to treat cancer (particularly of breast or
; CC   endometrium), in vivo or by transforming cells ex vivo and implanting
; CC   treated cells, or for other conditions associated with levels of
; CC   oestrogen receptor. Because of the high selectivity for targeted RNA, (A)
; CC   can also be used to correlate inhibition of gene expression with
; CC   alterations in phenotype, particularly for identification of therapeutic
; CC   targets, and as research reagents (for RNA, in the  same way that
; CC   restriction endonucleases are used with DNA). The combination of
; CC   modifications in (A) improves resistance to nucleases, binding affinity
; CC   and/or activity. AAA23503 to AAA24747 represent oestrogen receptor
; CC   hammerhead ribozyme sequences, and AAA24748 to AAA25992 represent their
; CC   corresponding target sequences. AAA25993 to AAA26105 represent oestrogen
; CC   receptor hairpin ribozyme sequences, and AAA26107 to AAA26218 represent
; CC   their corresponding target sequences. AAA26219 to AAA26271 represent
; CC   other ribozyme sequences and antisense oligonucleotides used in the
; CC   exemplification of the present invention.
; XX
; SQ   Sequence 17 BP; 0 A; 0 C; 1 G; 16 T; 0 other;
;
;  AAA25449  Length: 17  October 16, 2003 08:46  Type: N  Check: 2839  ..
aaa25449

  Query Match              0.3%;  Score 16;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   16;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4500 GTTTTTTTTTTTTTTT 4515
              ||||||||||||||||
Db          1 GTTTTTTTTTTTTTTT 16


RESULT 94
aaa25451
;  TOIG of: aaa25451  check: 2631  from: 1  to: 17
;
; ID   AAA25451 standard; DNA; 17 BP.
; XX
; AC   AAA25451;
; XX
; DT   19-JUL-2000  (first entry)
; XX
; DE   Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1949.
; XX
; KW   Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
; KW   hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
; KW   gene expression modification; cancer; phosphorothioate; endonuclease;
; KW   anticancer; breast cancer; endometrium cancer; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO9954459-A2.
; XX
; PD   28-OCT-1999.
; XX
; PF   19-APR-1999;   99WO-US08547.
; XX
; PR   20-APR-1998;   98US-0082404.
; PR   23-JUN-1998;   98US-0103636.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC.
; XX
; PI   Thompson JD,  Beigelman L,  McSwiggen JA,  Karpeisky A,  Bellon L;
; PI   Reynolds M,  Zwick M,  Jarvis T,  Woolf T,  Haeberli P;
; PI   Matulic-Adamic J;
; XX
; DR   WPI; 2000-013248/01.
; XX
; PT   New nucleic acids that interact, and optionally cleave, target
; PT   sequences, used to treat cancer
; XX
; PS   Claim 77; Page 79; 148pp; English.
; XX
; CC   The present invention describes nucleic acids (A) that interact stably
; CC   with a target sequence and contain at least one phosphoro(di)thioate
; CC   link, having endonuclease activity. (A), and more generally any
; CC   catalytic nucleic acid (A') that modulates expression of the oestrogen
; CC   receptor gene, are used to treat cancer (particularly of breast or
; CC   endometrium), in vivo or by transforming cells ex vivo and implanting
; CC   treated cells, or for other conditions associated with levels of
```

; CC oestrogen receptor. Because of the high selectivity for targeted RNA, (A)
; CC can also be used to correlate inhibition of gene expression with
; CC alterations in phenotype, particularly for identification of therapeutic
; CC targets, and as research reagents (for RNA, in the same way that
; CC restriction endonucleases are used with DNA). The combination of
; CC modifications in (A) improves resistance to nucleases, binding affinity
; CC and/or activity. AAA23503 to AAA24747 represent oestrogen receptor
; CC hammerhead ribozyme sequences, and AAA24748 to AAA25992 represent their
; CC corresponding target sequences. AAA25993 to AAA26105 represent oestrogen
; CC receptor hairpin ribozyme sequences, and AAA26107 to AAA26218 represent
; CC their corresponding target sequences. AAA26219 to AAA26271 represent
; CC other ribozyme sequences and antisense oligonucleotides used in the
; CC exemplification of the present invention.
; XX
; SQ Sequence 17 BP; 0 A; 0 C; 1 G; 16 T; 0 other;
;
; AAA25451 Length: 17 October 16, 2003 08:46 Type: N Check: 2631 ..
aaa25451

Query Match 0.3%; Score 16; DB 1; Length 17;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 4501 TTTTTTTTTTTTTTTG 4516
||||||||||||||||
Db 2 TTTTTTTTTTTTTTTG 17

RESULT 95
aaa25452
; TOIG of: aaa25452 check: 2644 from: 1 to: 17
;
; ID AAA25452 standard; DNA; 17 BP.
; XX
; AC AAA25452;
; XX
; DT 19-JUL-2000 (first entry)
; XX
; DE Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1950.
; XX
; KW Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
; KW hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
; KW gene expression modification; cancer; phosphorcthioate; endonuclease;
; KW anticancer; breast cancer; endometrium cancer; ss.
; XX
; OS Homo sapiens.
; XX
; PN WO9954459-A2.
; XX
; PD 28-OCT-1999.
; XX
; PF 19-APR-1999; 99WO-US08547.
; XX
; PR 20-APR-1998; 98US-0082404.
; PR 23-JUN-1998; 98US-0103636.
; XX
; PA (RIBO-) RIBOZYME PHARM INC.
; XX
; PI Thompson JD, Beigelman L, McSwiggen JA, Karpeisky A, Bellon L;
; PI Reynolds M, Zwick M, Jarvis T, Woolf T, Haeberli P;
; PI Matulic-Adamic J;
; XX
; DR WPI; 2000-013248/01.
; XX
; PT New nucleic acids that interact, and optionally cleave, target
; PT sequences, used to treat cancer -
; XX
; PS Claim 77; Page 79; 148pp; English.
; XX
; CC The present invention describes nucleic acids (A) that interact stably
; CC with a target sequence and contain at least one phosphoro(di)thioate
; CC link, having endonuclease activity. (A), and more generally any
; CC catalytic nucleic acid (A') that modulates expression of the oestrogen
; CC receptor gene, are used to treat cancer (particularly of breast or
; CC endometrium), in vivo or by transforming cells ex vivo and implanting
; CC treated cells, or for other conditions associated with levels of
; CC oestrogen receptor. Because of the high selectivity for targeted RNA, (A)
; CC can also be used to correlate inhibition of gene expression with
; CC alterations in phenotype, particularly for identification of therapeutic
; CC targets, and as research reagents (for RNA, in the same way that
; CC restriction endonucleases are used with DNA). The combination of
; CC modifications in (A) improves resistance to nucleases, binding affinity
; CC and/or activity. AAA23503 to AAA24747 represent oestrogen receptor
; CC hammerhead ribozyme sequences, and AAA24748 to AAA25992 represent their
; CC corresponding target sequences. AAA25993 to AAA26105 represent oestrogen
; CC receptor hairpin ribozyme sequences, and AAA26107 to AAA26218 represent
; CC their corresponding target sequences. AAA26219 to AAA26271 represent
; CC other ribozyme sequences and antisense oligonucleotides used in the
; CC exemplification of the present invention.
; XX
; SQ Sequence 17 BP; 0 A; 0 C; 1 G; 16 T; 0 other;
;
; AAA25452 Length: 17 October 16, 2003 08:46 Type: N Check: 2644 ..
aaa25452

Query Match 0.3%; Score 16; DB 1; Length 17;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 4501 TTTTTTTTTTTTTTTG 4516
||||||||||||||||
Db 1 TTTTTTTTTTTTTTTG 16

RESULT 96
aav49503
; TOIG of: aav49503 check: 2516 from: 1 to: 17
;
; ID AAV49503 standard; cDNA to mRNA; 17 BP.
; XX
; AC AAV49503;
; XX
; DT 18-NOV-1998 (first entry)
; XX
; DE Human eosinophil cell activator HVC002 primer #1.
; XX
; KW Eosinophil cell activator; treatment; diagnosis; malignant tumour;
; KW parasitic infection; allergic inflammation; eosinophilic pneumonia;
; KW rapid onset eosinophilia; autoimmune disease; gene therapy; primer; ss.
; XX
; OS Synthetic.
; OS Homo sapiens.
; XX
; PN WO9824817-A1.
; XX
; PD 11-JUN-1998.
; XX
; PF 05-DEC-1997; 97WO-JP04470.
; XX
; PR 05-DEC-1996; 96JP-0325762.
; XX
; PA (KYOW) KYOWA HAKKO KOGYO KK.
; XX
; PI Koike M, Kuga T, Nakagawa S, Nishi T, Saito A;
; PI Shinkai A, Yoshisue H;
; XX
; DR WPI; 1998-333261/29.
; XX
; PT DNA and encoded protein which activates eosinophil cells - for
; PT treatment of cancer, parasite infection, autoimmune disease and
; PT allergic inflammation
; XX
; PS Example 1; Page 64; 92pp; Japanese.
; XX
; CC AAV49503-V49507 are primers used in the isolation of a human eosinophil
; CC cell activator. This protein and antibodies generated from the protein

; CC can be used for treatment and diagnosis of malignant tumours, parasitic
; CC infections, allergic inflammation, eosinophilic pneumonia, rapid onset
; CC eosinophilia, and autoimmune diseases. DNA can be used for diagnosis,
; CC and the antisense DNA in gene therapy of these disorders. The protein
; CC can be used for screening of potential agonists or antagonists of its
; CC activity.
; XX
; SQ Sequence 17 BP; 1 A; 0 C; 1 G; 15 T; 0 other;
;
; AAV49503 Length: 17 October 16, 2003 08:46 Type: N Check: 2516 ..
aav49503

Query Match 0.3%; Score 16; DB 1; Length 17;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 4500 GTTTTTTTTTTTTTTT 4515
||||||||||||||||
Db 1 GTTTTTTTTTTTTTTT 16

RESULT 97
aav49503/c
; TOIG of: aav49503 check: 2516 from: 1 to: 17
;
; ID AAV49503 standard; cDNA to mRNA; 17 BP.
; XX
; AC AAV49503;
; XX
; DT 18-NOV 1998 (first entry)
; XX
; DE Human eosinophil cell activator HVC002 primer #1.
; XX
; KW Eosinophil cell activator; treatment; diagnosis; malignant tumour;
; KW parasitic infection; allergic inflammation; eosinophilic pneumonia;
; KW rapid onset eosinophilia; autoimmune disease; gene therapy; primer; ss.
; XX
; OS Synthetic.
; OS Homo sapiens.
; XX
; PN WO9824817-A1.
; XX
; PD 11-JUN-1998.
; XX
; PF 05-DEC-1997; 97WO-JP04470.
; XX
; PR 05-DEC-1996; 96JP-0325762.
; XX
; PA (KYOW) KYOWA HAKKO KOGYO KK.
; XX
; PI Koike M, Kuga T, Nakagawa S, Nishi T, Saito A;
; PI Shinkai A, Yoshisue H;
; XX
; DR WPI; 1998-333261/29.
; XX
; PT DNA and encoded protein which activates eosinophil cells - for
; PT treatment of cancer, parasite infection, autoimmune disease and
; PT allergic inflammation
; XX
; PS Example 1; Page 64; 92pp; Japanese.
; XX
; CC AAV49503-V49507 are primers used in the isolation of a human eosinophil
; CC cell activator. This protein and antibodies generated from the protein
; CC can be used for treatment and diagnosis of malignant tumours, parasitic
; CC infections, allergic inflammation, eosinophilic pneumonia, rapid onset
; CC eosinophilia, and autoimmune diseases. DNA can be used for diagnosis,
; CC and the antisense DNA in gene therapy of these disorders. The protein
; CC can be used for screening of potential agonists or antagonists of its
; CC activity.
; XX
; SQ Sequence 17 BP; 1 A; 0 C; 1 G; 15 T; 0 other;
;
; AAV49503 Length: 17 October 16, 2003 08:46 Type: N Check: 2516 ..
aav49503

Query Match 0.3%; Score 16; DB 1; Length 17;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 5206 TAAAAAAAAAAAAAAA 5221
||||||||||||||||
Db 17 TAAAAAAAAAAAAAAA 2

RESULT 98
aax82720
; TOIG of: aax82720 check: 2516 from: 1 to: 17
;
; ID AAX82720 standard; DNA; 17 BP.
; XX
; AC AAX82720;
; XX
; DT 10-NOV-2000 (first entry)
; XX
; DE Human IgA nephropathy associated cDNA primer #61.
; XX
; KW IgA nephropathy-associated protein; diagnosis; treatment; antisense;
; KW human; primer; ss.
; XX
; OS Homo sapiens.
; XX
; PN WO9963085-A1.
; XX
; PD 09-DEC-1999.
; XX
; PF 28-MAY-1999; 99WO-JP02865.
; XX
; PR 02-JUN-1998; 98JP-0152673.
; XX
; PA (KYOW) KYOWA HAKKO KOGYO KK.
; XX
; PI Ishiwata T, Sakurada M, Kawahara A, Nakagawa S, Nishi T, Kuga T;
; PI Sawada S, Takei M, Shibata K, Furuya A;
; XX
; DR WPI; 2000-097328/08.
; XX
; PT DNA sequences preferentially expressed in IgA nephropathy patients,
; PT proteins encoded by them, and antibodies to those proteins
; XX
; PS Claim 3; Page 169; 180pp; Japanese.
; XX
; CC This invention describes novel DNA sequences preferentially expressed in
; CC IgA nephropathy patients, and DNA sequences stringently hybridizing to
; CC them. Independent claims cover diagnostic reagents for IgA nephropathy
; CC incorporating the antisense sequences; the treatment of IgA nephropathy
; CC using the antisense sequences for mRNA inhibition; proteins associated
; CC with IgA nephropathy, containing sequences encoded by the DNA sequences;
; CC antibodies recognizing these proteins; the production of the proteins
; CC by culture of host cells transformed with DNA encoding them; diagnostic
; CC reagents for IgA nephropathy containing the antibodies; and compositions
; CC for the treatment of IgA nephropathy which contain the antibodies. The
; CC products of the invention can be used for the diagnosis and treatment of
; CC IgA nephropathy. This sequence represents a primer used in the isolation
; CC and identification of the human IgA nephropathy-associated proteins
; CC described in the method of the invention.
; XX
; SQ Sequence 17 BP; 1 A; 0 C; 1 G; 15 T; 0 other;
;
; AAX82720 Length: 17 October 16, 2003 08:46 Type: N Check: 2516 ..
aax82720

Query Match 0.3%; Score 16; DB 1; Length 17;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 4500 GTTTTTTTTTTTTTTT 4515

```
                  ||||||||||||||||
Db          1 GTTTTTTTTTTTTTTT 16


RESULT 99
aax82720/c
;  TOIG of: aax82720  check: 2516  from: 1  to: 17
;
; ID   AAX82720 standard; DNA; 17 BP.
; XX
; AC   AAX82720;
; XX
; DT   10-NOV-2000  (first entry)
; XX
; DE   Human IgA nephropathy-associated cDNA primer #61.
; XX
; KW   IgA nephropathy-associated protein; diagnosis; treatment; antisense;
; KW   human; primer; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO9963085-A1.
; XX
; PD   09-DEC-1999.
; XX
; PF   28-MAY-1999;   99WO-JP02855.
; XX
; PR   02-JUN-1998;   98JP-0152603.
; XX
; PA   (KYOW ) KYOWA HAKKO KOGYO KK.
; XX
; PI   Ishiwata T,  Sakurada M,  Kawabata A,  Nakagawa S,  Nishi T,  Kuga T;
; PI   Sawada S,  Takei M,  Shibata K,  Furuya A;
; XX
; DR   WPI; 2000-097328/08.
; XX
; PT   DNA sequences preferentially expressed in IgA nephropathy patients,
; PT   proteins encoded by them, and antibodies to those proteins -
; XX
; PS   Claim 3; Page 169; 180pp; Japanese.
; XX
; CC   This invention describes novel DNA sequences preferentially expressed in
; CC   IgA nephropathy patients, and DNA sequences stringently hybridizing to
; CC   them. Independent claims cover diagnostic reagents for IgA nephropathy
; CC   incorporating the antisense sequences; the treatment of IgA nephropathy
; CC   using the antisense sequences for mRNA inhibition; proteins associated
; CC   with IgA nephropathy, containing sequences encoded by the DNA sequences;
; CC   antibodies recognizing these proteins; the production of the proteins
; CC   by culture of host cells transformed with DNA encoding them; diagnostic
; CC   reagents for IgA nephropathy containing the antibodies; and compositions
; CC   for the treatment of IgA nephropathy which contain the antibodies. The
; CC   products of the invention can be used for the diagnosis and treatment of
; CC   IgA nephropathy. This sequence represents a primer used in the isolation
; CC   and identification of the human IgA nephropathy-associated proteins
; CC   described in the method of the invention.
; XX
; SQ   Sequence 17 BP; 1 A; 0 C; 1 G; 15 T; 0 other;
;
;  AAX82720  Length: 17  October 16, 2003 08:46  Type: N  Check: 2516  ..
aax82720

  Query Match              0.3%;  Score 16;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   16;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5206 TAAAAAAAAAAAAAAA 5221
                ||||||||||||||||
Db         17 TAAAAAAAAAAAAAAA 2


RESULT 100
aax82722
;  TOIG of: aax82722  check: 2550  from: 1  to: 17
;
; ID   AAX82722 standard; DNA; 17 BP.
; XX
; AC   AAX82722;
; XX
; DT   10-NOV-2000  (first entry)
; XX
; DE   Human IgA nephropathy-associated cDNA primer #63.
; XX
; KW   IgA nephropathy-associated protein; diagnosis; treatment; antisense;
; KW   human; primer; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO9963085-A1.
; XX
; PD   09-DEC-1999.
; XX
; PF   28-MAY-1999;   99WO-JP02855.
; XX
; PR   02-JUN-1998;   98JP-0152603.
; XX
; PA   (KYOW ) KYOWA HAKKO KOGYO KK.
; XX
; PI   Ishiwata T,  Sakurada M,  Kawabata A,  Nakagawa S,  Nishi T,  Kuga T;
; PI   Sawada S,  Takei M,  Shibata K,  Furuya A;
; XX
; DR   WPI; 2000-097328/08.
; XX
; PT   DNA sequences preferentially expressed in IgA nephropathy patients,
; PT   proteins encoded by them, and antibodies to those proteins -
; XX
; PS   Claim 3; Page 170; 180pp; Japanese.
; XX
; CC   This invention describes novel DNA sequences preferentially expressed in
; CC   IgA nephropathy patients, and DNA sequences stringently hybridizing to
; CC   them. Independent claims cover diagnostic reagents for IgA nephropathy
; CC   incorporating the antisense sequences; the treatment of IgA nephropathy
; CC   using the antisense sequences for mRNA inhibition; proteins associated
; CC   with IgA nephropathy, containing sequences encoded by the DNA sequences;
; CC   antibodies recognizing these proteins; the production of the proteins
; CC   by culture of host cells transformed with DNA encoding them; diagnostic
; CC   reagents for IgA nephropathy containing the antibodies; and compositions
; CC   for the treatment of IgA nephropathy which contain the antibodies. The
; CC   products of the invention can be used for the diagnosis and treatment of
; CC   IgA nephropathy. This sequence represents a primer used in the isolation
; CC   and identification of the human IgA nephropathy-associated proteins
; CC   described in the method of the invention.
; XX
; SQ   Sequence 17 BP; 0 A; 1 C; 1 G; 15 T; 0 other;
;
;  AAX82722  Length: 17  October 16, 2003 08:46  Type: N  Check: 2550  ..
aax82722

  Query Match              0.3%;  Score 16;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   16;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4500 GTTTTTTTTTTTTTTT 4515
                ||||||||||||||||
Db          1 GTTTTTTTTTTTTTTT 16


RESULT 101
aad12369
;  TOIG of: aad12369  check: 5255  from: 1  to: 20
;
; ID   AAD12369 standard; DNA; 20 BP.
; XX
; AC   AAD12369;
; XX
; DT   25-SEP-2001  (first entry)
; XX
```

```
; DE   Human caspase 8 mRNA antisense compound ISIS 107647.
; XX
; KW   Caspase 8; infection; inflammation; tumour; research reagent; cytostatic;
; KW   gene therapy; antisense; human; phosphorothioate; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1. .20
; FT                   /*tag= a
; FT                   /mod_base= OTHER
; FT                   /note= "Phosphorothioate backbone"
; FT   modified_base   1. .5
; FT                   /*tag= b
; FT                   /mod_base= OTHER
; FT                   /note= "2'-methoxyethyl (2'-MOE) nucleotides"
; FT   modified_base   16. .20
; FT                   /*tag= c
; FT                   /mod_base= OTHER
; FT                   /note= "2'-methoxyethyl (2'-MOE) nucleotides"
; FT   modified_base   2
; FT                   /*tag= d
; FT                   /mod_base= m5c
; FT   modified_base   12
; FT                   /*tag= e
; FT                   /mod_base= m5c
; FT   modified_base   15
; FT                   /*tag= f
; FT                   /mod_base= m5c
; FT   modified_base   18
; FT                   /*tag= g
; FT                   /mod_base= m5c
; XX
; PN   US6258600-B1.
; XX
; PD   10-JUL-2001.
; XX
; PF   19-JAN-2000; 2000US-0487445.
; XX
; PR   19-JAN-2000; 2000US-0487445.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Zhang H, Cowsert LM;
; XX
; DR   WPI; 2001-432165/46.
; XX
; PT   New antisense compounds capable of modulating expression of caspase 8
; PT   for the diagnoses, prophylaxis and treatment of diseases associated
; PT   with expression of caspase 8, e.g. inflammation and tumor formation
; XX
; PS   Example 15; Column 43-44; 56pp; English.
; XX
; CC   The invention relates to antisense compounds which inhibit the expression
; CC   of human caspase 8. The antisense compound is useful for diagnosing
; CC   and treating diseases associated with the expression of caspase 8 and
; CC   for prophylaxis e.g. to prevent or delay infection, inflammation or
; CC   tumour formation, and as a research reagent. The present sequence is
; CC   an antisense compound targetted to human caspase 8 mRNA.
; XX
; SQ   Sequence 20 BP; 4 A; 4 C; 4 G; 8 T; 0 other;
;
;  AAD12369  Length: 20  October 16, 2003 08:46  Type: N  Check: 5255  ..
aad12369

  Query Match             0.3%;  Score 16;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   16;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1772 GTTGATTATCTTCAGC 1787
              ||||||||||||||||
Db          3 GTTGATTATCTTCAGC 18
```

```
RESULT 102
aav07752/c
;  TOIG of: aav07752  check: 7450  from: 1  to: 20
;
; ID   AAV07752 standard; DNA; 20 BP.
; XX
; AC   AAV07752;
; XX
; DT   07-DEC-1998  (first entry)
; XX
; DE   Phosphorothioate oligonucleotide.
; XX
; KW   phosphorothioate; sulphurisation; heterocycle; automated synthesis;
; KW   antisense; EDITH; Reaucage reagent; ss.
; XX
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   misc_feature    1. .20
; FT                   /*tag= a
; FT                   /note= "phosphorothioate internucleotide linkages"
; XX
; PN   WO9741130-A2.
; XX
; PD   06-NOV-1997.
; XX
; PF   29-APR-1997;   97WO US07119.
; XX
; PR   30-APR-1996;   96US 0641928.
; XX
; PA   (LOUU ) UNIV LOUISIANA STATE & AGRIC.
; PA   (MINU ) UNIV MINNESOTA.
; XX
; PI   Barany G, Chen L, Hammer RP, Musier-Forsyth K, Xu Q;
; XX
; DR   WPI; 1997-549671/50.
; XX
; PT   Sulphurisation of phosphorus-containing compounds, e.g.
; PT   oligo:nucleotide(s) - by contacting the compound with a
; PT   di:sulphide-containing five-membered heterocycle
; XX
; PS   Example 7; Page 30; 51pp; English.
; XX
; CC   The present invention provides a method for sulphurising phosphorus-
; CC   containing compounds. It comprises contacting the phosphorus containing
; CC   compound which a 1,2,4 dithiazolidine-2,5-dione compound or a
; CC   3-substituted-1,2,4-dithiazolin-5-one compound. The method is especially
; CC   useful for incorporation of phosphorothioate linkages into biologically
; CC   important molecules such as DNA, RNA and phosphopeptides. Molecules
; CC   containing such linkages are useful e.g. as antisense compounds for
; CC   inhibiting gene expression, as reagents for studying DNA-protein or RNA
; CC   protein interactions, or as catalytic RNA. The present sequence
; CC   represents an oligonucleotide with phosphorothioate linkages prepared by
; CC   the method of the invention.
; XX
; SQ   Sequence 20 BP; 1 A; 0 C; 0 G; 19 U; 0 other;
;
;  AAV07752  Length: 20  October 16, 2003 08:46  Type: N  Check: 7450  ..
aav07752

  Query Match             0.3%;  Score 16;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   16;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5206 TAAAAAAAAAAAAAAA 5221
              ||||||||||||||||
Db         20 TAAAAAAAAAAAAAAA 5


RESULT 103
aax38448/c
```

```
;  TOIG of: aax38448  check: 5286  from: 1  to: 20
;
; ID   AAX38448 standard; DNA; 20 BP.
; XX
; AC   AAX38448;
; XX
; DT   16-JUN-1999  (first entry)
; XX
; DE   E. coli SecA antisense oligonucleotide 4.
; XX
; KW   Microorganism inhibitor; antisense; nuclease resistant; treatment;
; KW   ribonucleotide reductase; secA gene; pathological condition; R1 subunit;
; KW   antimicrobial agent; crop protection; primer; R2 subunit; ss.
; XX
; OS   Synthetic.
; OS   Escherichia coli.
; XX
; PN   WO9902673-A2.
; XX
; PD   21-JAN-1999.
; XX
; PF   10-JUL-1998;   98WO-CA00666.
; XX
; PR   10-JUL-1997;   97US-0052160.
; XX
; PA   (GENE-) GENESENSE TECHNOLOGIES INC.
; XX
; PI   Dugourd D,  Wright JA,  Young AH;
; XX
; DR   WPI; 1999-120874/10.
; XX
; PT   New oligonucleotides complementary to RR or SecA genes  - useful to
; PT   inhibit growth of microorganisms
; XX
; PS   Disclosure; Page 22; 103pp; English.
; XX
; CC   This invention describes novel antisense oligonucleotides
; CC   (AAX38301-X38552) which are nuclease resistant, and comprises about 3-50
; CC   nucleotides complementary to the ribonucleotide reductase gene or the
; CC   secA gene of a microorganism. The antisense oligonucleotides are used to
; CC   treat mammalian pathological conditions mediated by microorganisms. The
; CC   oligonucleotides are particularly useful as antimicrobial agents in crop
; CC   protection.
; XX
; SQ   Sequence 20 BP; 2 A; 7 C; 2 G; 9 T; 0 other;
;
;  AAX38448  Length: 20  October 16, 2003 08:46  Type: N  Check: 5286  ..
aax38448

  Query Match             0.3%;  Score 16;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   16;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1284 GAACCGGAGATGGAAA 1299
              ||||||||||||||||
Db         18 GAACCGGAGATGGAAA 3


RESULT 104
aaa25446
;  TOIG of: aaa25446  check: 2743  from: 1  to: 17
;
; ID   AAA25446 standard; DNA; 17 BP.
; XX
; AC   AAA25446;
; XX
; DT   19-JUL-2000  (first entry)
; XX
; DE   Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1944.
; XX
; KW   Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
; KW   hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
; KW   gene expression modification; cancer; phosphorothioate; endonuclease;
; KW   anticancer; breast cancer; endometrium cancer; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO9954459-A2.
; XX
; PD   28-OCT-1999.
; XX
; PF   19-APR-1999;   99WO-US08547.
; XX
; PR   20-APR-1998;   98US-0082404.
; PR   23-JUN-1998;   98US-0103636.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC.
; XX
; PI   Thompson JD,  Beigelman L,  McSwiggen JA,  Karpeisky A,  Bellon L;
; PI   Reynolds M,  Zwick M,  Jarvis T,  Woolf T,  Haeberli P;
; PI   Matulic-Adamic J;
; XX
; DR   WPI; 2000-013248/01.
; XX
; PT   New nucleic acids that interact, and optionally cleave, target
; PT   sequences, used to treat cancer  -
; XX
; PS   Claim 77; Page 79; 148pp; English.
; XX
; CC   The present invention describes nucleic acids (A) that interact stably
; CC   with a target sequence and contain at least one phosphoro(di)thioate
; CC   link, having endonuclease activity. (A), and more generally any
; CC   catalytic nucleic acid (A') that modulates expression of the oestrogen
; CC   receptor gene, are used to treat cancer (particularly of breast or
; CC   endometrium), in vivo or by transforming cells ex vivo and implanting
; CC   treated cells, or for other conditions associated with levels of
; CC   oestrogen receptor. Because of the high selectivity for targeted RNA, (A)
; CC   can also be used to correlate inhibition of gene expression with
; CC   alterations in phenotype, particularly for identification of therapeutic
; CC   targets, and as research reagents (for RNA, in the  same way that
; CC   restriction endonucleases are used with DNA). The combination of
; CC   modifications in (A) improves resistance to nucleases, binding affinity
; CC   and/or activity. AAA23503 to AAA24747 represent oestrogen receptor
; CC   hammerhead ribozyme sequences, and AAA24748 to AAA25992 represent their
; CC   corresponding target sequences. AAA25993 to AAA26105 represent oestrogen
; CC   receptor hairpin ribozyme sequences, and AAA26107 to AAA26218 represent
; CC   their corresponding target sequences. AAA26219 to AAA26271 represent
; CC   other ribozyme sequences and antisense oligonucleotides used in the
; CC   exemplification of the present invention.
; XX
; SQ   Sequence 17 BP; 1 A; 0 C; 1 G; 15 T; 0 other;
;
;  AAA25446  Length: 17  October 16, 2003 08:46  Type: N  Check: 2743  ..
aaa25446

  Query Match             0.3%;  Score 15.4;  DB 1;  Length 17;
  Best Local Similarity   94.1%;  Pred. No. 0;
  Matches   16;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       4497 TAAGTTTTTTTTTTTT 4513
              | ||||||||||||||||
Db          1 TTAGTTTTTTTTTTTT 17


RESULT 105
aaa25451/c
;  TOIG of: aaa25451  check: 2631  from: 1  to: 17
;
; ID   AAA25451 standard; DNA; 17 BP.
; XX
; AC   AAA25451;
; XX
; DT   19-JUL-2000  (first entry)
; XX
; DE   Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1949.
; XX
```

```
; KW   Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
; KW   hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
; KW   gene expression modification; cancer; phosphorothioate; endonuclease;
; KW   anticancer; breast cancer; endometrium cancer; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO9954459-A2.
; XX
; PD   28-OCT-1999.
; XX
; PF   19-APR-1999;   99WO-US08547.
; XX
; PR   20-APR-1998;   98US-0082404.
; PR   23-JUN-1998;   98US-0103636.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC.
; XX
; PI   Thompson JD, Beigelman L, McSwiggen JA, Karpeisky A, Bellon L;
; PI   Reynolds M, Zwick M, Jarvis T, Woolf T, Haeberli P;
; PI   Matulic-Adamic J;
; XX
; DR   WPI; 2000-013248/01.
; XX
; PT   New nucleic acids that interact, and optionally cleave, target
; PT   sequences, used to treat cancer -
; XX
; PS   Claim 77; Page 79; 148pp; English.
; XX
; CC   The present invention describes nucleic acids (A) that interact stably
; CC   with a target sequence and contain at least one phosphoro(di)thioate
; CC   link, having endonuclease activity. (A), and more generally any
; CC   catalytic nucleic acid (A') that modulates expression of the oestrogen
; CC   receptor gene, are used to treat cancer (particularly of breast or
; CC   endometrium), in vivo or by transforming cells ex vivo and implanting
; CC   treated cells, or for other conditions associated with levels of
; CC   oestrogen receptor. Because of the high selectivity for targeted RNA, (A)
; CC   can also be used to correlate inhibition of gene expression with
; CC   alterations in phenotype, particularly for identification of therapeutic
; CC   targets, and as research reagents (for RNA, in the same way that
; CC   restriction endonucleases are used with DNA). The combination of
; CC   modifications in (A) improves resistance to nucleases, binding affinity
; CC   and/or activity. AAA23503 to AAA24747 represent oestrogen receptor
; CC   hammerhead ribozyme sequences, and AAA24748 to AAA25992 represent their
; CC   corresponding target sequences. AAA25993 to AAA26105 represent oestrogen
; CC   receptor hairpin ribozyme sequences, and AAA26107 to AAA26218 represent
; CC   their corresponding target sequences. AAA26219 to AAA26271 represent
; CC   other ribozyme sequences and antisense oligonucleotides used in the
; CC   exemplification of the present invention.
; XX
; SQ   Sequence 17 BP; 0 A; 0 C; 1 G; 16 T; 0 other;
;
;  AAA25451  Length: 17  October 16, 2003 08:46  Type: N  Check: 2631  ..
aaa25451

  Query Match             0.3%;  Score 15.4;  DB 1;  Length 17;
  Best Local Similarity   94.1%;  Pred. No. 0;
  Matches   16;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       5205 CTAAAAAAAAAAAAAAA 5221
              | ||||||||||||||||
Db         17 CAAAAAAAAAAAAAAAA 1


RESULT 106
abt35107/c
;  TOIG of: abt35107  check: 1800  from: 1  to: 17
;
; ID   ABT35107 standard; DNA; 17 BP.
; XX
; AC   ABT35107;
; XX
; DT   12-JUN-2003  (first entry)
; XX
; DE   Tumour suppression related human fukutin oligo SEQ ID No 744.
; XX
; KW   Cytostatic; virucide; neuroprotective; nootropic; neuroleptic; gene chip;
; KW   antisense; sense; tumour; cell degeneration; cancer; Alzheimer's disease;
; KW   schizophrenia; protein chip; gene therapy; tumour suppression;
; KW   human fukutin; ds.
; XX
; OS   Homo sapiens.
; XX
; PN   WO2003025175-A2.
; XX
; PD   27-MAR-2003.
; XX
; PF   17-SEP-2002; 2002WO-IB004208.
; XX
; PR   17-SEP-2001; 2001FR-0011978.
; XX
; PA   (MOLE-) MOLECULAR ENGINES LAB.
; XX
; PI   Zelerman A, Amson R, Tuinpoel M;
; XX
; DR   WPI; 2003-313353/30.
; XX
; PT   New isolated nucleic acid, useful for treating viral diseases
; PT   associated with tumors and cell degeneration, also related
; PT   polypeptides, antibodies and transfected cells -
; XX
; PS   Disclosure; Page 121; 720pp; French.
; XX
; CC   The invention relates to a novel isolated 17 mer nucleic acid sequence,
; CC   given in the specification, a sequence containing at least 15
; CC   consecutive nucleotides from the 17 mer sequence, a sequence with, after
; CC   optimal alignment, at least 80 % identity to the 17 mer sequence, a
; CC   sequence that hybridizes to them under highly stringent conditions, or
; CC   the complement of any of them, or the corresponding RNA. The novel
; CC   isolated nucleic acids of the invention are useful as probes and primers
; CC   for detecting, identifying, quantifying and/or amplifying a nucleic acid,
; CC   e.g. as one component of a gene chip, in vitro as (anti)sense reagents,
; CC   and for production of recombinant polypeptides. Any of the nucleic acids,
; CC   polypeptides, vectors containing the nucleic acids, cells containing the
; CC   vector or antibodies directed against the polypeptides are useful for
; CC   preparation of pharmaceuticals for prevention and/or treatment of viral
; CC   diseases that are characterised by development of tumours or cell
; CC   degeneration, specifically cancer but also Alzheimer's disease and
; CC   schizophrenia. Analysis of the expression of the 17 mer nucleic acids in
; CC   patient samples is useful for diagnosis and/or prognosis of these
; CC   diseases. The polypeptides can also be used to generate antibodies, and
; CC   both the polypeptide and antibodies are useful as components of protein
; CC   chips. The nucleic acid sequences of the invention can be used in gene
; CC   therapy. This polynucleotide sequence represents a tumour suppression
; CC   related human fukutin oligonucleotide of the invention.
; XX
; SQ   Sequence 17 BP; 3 A; 2 C; 3 G; 9 T; 0 other;
;
;  ABT35107  Length: 17  October 16, 2003 08:46  Type: N  Check: 1800  ..
abt35107

  Query Match             0.3%;  Score 15.4;  DB 1;  Length 17;
  Best Local Similarity   94.1%;  Pred. No. 0;
  Matches   16;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       4170 AATGATAAACTCAGATC 4186
              |||||||||| |:||||
Db         17 AATGATAAACACAGATC 1


RESULT 107
aaa72005/c
;  TOIG of: aaa72005  check: 1890  from: 1  to: 18
;
; ID   AAA72005 standard; DNA; 18 BP.
; XX
```

```
; AC   AAA72005;
; XX
; DT   20-NOV-2000  (first entry)
; XX
; DE   Human PDE8A specific outer PCR primer, SEQ ID NO:10.
; XX
; KW   Cyclic nucleotide phosphodiesterase; human; PDE8A; PDE8A(E);
; KW   promonocyte; expressed sequence tag; EST; PDE4A homologue;
; KW   signal transduction regulation; drug screening; cancer; tumour;
; KW   immune disorder; neuronal disorder; PDE8 antagonist; antisense therapy;
; KW   antibody; PCR primer; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   US6080548-A.
; XX
; PD   27-JUN-2000.
; XX
; PF   23-FEB-1999;   99US-0255748.
; XX
; PR   19-NOV-1997;   97US-0974565.
; XX
; PA   (INCY-) INCYTE PHARM INC.
; XX
; PI   Seilhamer JJ,  Fisher DA,  Au-Young J,  Cocks BG,  Coleman R;
; XX
; DR   WPI; 2000-441515/38.
; XX
; PT   Novel cyclic nucleotide phosphodiesterase polypeptide and
; PT   polynucleotide for diagnosis, prevention, and treatment of cancer,
; PT   immune and neuronal disorders -
; XX
; PS   Example V; Column 36; 65pp; English.
; XX
; CC   The invention relates to proteins (AAB11935-B11938) which are members of
; CC   a novel family of human cyclic nucleotide phosphodiesterases, and to
; CC   cDNAs encoding them (AAA72001-A72004). ESTs (expressed sequence tags)
; CC   encoding fragments of PDE8A/PDE8A(E) (AAB11935, AAB11937) and
; CC   PDE8B/PDE8B(E) (AAB11936, AAB11938) were isolated from promonocyte and
; CC   atrial tissue cDNA libraries respectively, and extended via PCR using
; CC   lambda-gt10 human testis or stomach cDNA libraries. Members of the PDE8
; CC   family have chemical and structural to rat PDE4A (GI1705952). Cyclic
; CC   nucleotide phosphodiesterases degrade cyclic nucleotides to their
; CC   corresponding monophosphates, thereby regulating the intracellular
; CC   concentrations of cyclic nucleotides and their effects on signal
; CC   transduction. PDE8 proteins (AAB11935-B11938) and nucleotides
; CC   (AAA72001-A72004) may be used in the diagnosis, prevention and treatment
; CC   of cancers (such as those of the bone marrow, brain or breast), immune
; CC   disorders (e.g., allergies, systemic lupus erythematosus, rheumatoid
; CC   arthritis) and neuronal disorders (e.g., Alzheimer's disease, Parkinson's
; CC   disease and Huntington's disease). Such conditions may be treated using a
; CC   PDE8 antagonist which should have the effect of increasing intracellular
; CC   levels of cAMP, which in turn inhibits some immune and inflammatory
; CC   responses. The PDE8 proteins can be used to raise antibodies which may
; CC   be used therapeutically and in diagnosis. The proteins can also be used
; CC   to screen potential modulators of PDE8 activity. PDE8 nucleic acids may
; CC   be used in antisense therapy, and as a source of probes and primers for
; CC   use in diagnostic techniques. Sequences AAA72005-A72010 represent PCR
; CC   primers used in an exemplification to extend ESTs encoding PDE8A and
; CC   PDE8A(E).
; XX
; SQ   Sequence 18 BP; 8 A; 4 C; 4 G; 2 T; 0 other;
;
;  AAA72005  Length: 18  October 16, 2003 08:46  Type: N  Check: 1890  ..
aaa72005

  Query Match             0.3%;  Score 15.4;  DB 1;  Length 18;
  Best Local Similarity   94.1%;  Pred. No. 0;
  Matches   16;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        900 TGCTGCTGATGTGCTTC 916
              | ||||||||||||||||
Db         17 TTCTGCTGATGTGCTTC 1
```

```
RESULT 108
aav21967
;  TOIG of: aav21967  check: 2825  from: 1  to: 18
;
; ID   AAV21967 standard; DNA; 18 BP.
; XX
; AC   AAV21967;
; XX
; DT   14-JUL-1998  (first entry)
; XX
; DE   Nuclease resistant antisense oligo NBT 140 targeted against (AT)9.
; XX
; KW   Nuclease resistant; bacterial infection; antibiotic; target;
; KW   veterinary medicine; treatment; human; industrial process;
; KW   bacterial control; ss.
; XX
; OS   Synthetic.
; XX
; PN   WO9803533-A1.
; XX
; PD   29-JAN-1998.
; XX
; PF   23-JUL-1997;   97WO-US12961.
; XX
; PR   24-JUL-1996;   96US-0685575.
; XX
; PA   (OLIG-) OLIGOS ETC & OLIGOS THERAPEUTICS INC.
; XX
; PI   Arrow A,  Dale RMK,  Thompson TL;
; XX
; DR   WPI; 1998-120687/11.
; XX
; PT   Treating bacterial infections in humans or animals with
; PT   oligo:nucleotide(s) - resistant to nuclease and targetted to
; PT   bacterial nucleic acid or proteins, also conjugates of these
; PT   oligo:nucleotide(s) with antibiotics
; XX
; PS   Claim 49; Page 87; 163pp; English.
; XX
; CC   This antisense oligonucleotide is nuclease resistant and can be used in
; CC   the treatment of animals, including humans, having a bacterial infection.
; CC   The treatment comprises administration of such nuclease resistant
; CC   oligonucleotides, targeted to a nucleic acid or protein of the bacterium,
; CC   and formulated with a carrier. A compound comprising this nuclease
; CC   resistant oligonucleotide can be covalently linked to an antibiotic. The
; CC   method is used to treat infections by a wide variety of Gram-positive and
; CC   Gram-negative, or acid-fast, bacteria, in human and veterinary medicine.
; CC   The methods are particularly used in immuno-compromised individuals
; CC   (e.g. patients with acquired immunodeficiency syndrome or those receiving
; CC   chemotherapy or radiation therapy), optionally in combination with, or
; CC   fused to, antiviral or other antimicrobial oligonucleotides. Apart from
; CC   therapeutic use, the oligonucleotides can be used to control bacteria
; CC   in laboratory cultures, foods, beverages and industrial processes. The
; CC   oligonucleotides are specific for bacteria, without affecting metabolism
; CC   in mammalian cells. They may also activate RNase H and have a general,
; CC   non-specific immune-stimulating effect. The oligonucleotides can be
; CC   administered orally, intranasally, rectally, topically or by injection,
; CC   optionally coupled to an agent (e.g. carbohydrate or polyamine) that
; CC   enhances cellular uptake.
; XX
; SQ   Sequence 18 BP; 9 A; 0 C; 0 G; 9 T; 0 other;
;
;  AAV21967  Length: 18  October 16, 2003 08:46  Type: N  Check: 2825  ..
aav21967

  Query Match             0.3%;  Score 15.4;  DB 1;  Length 18;
  Best Local Similarity   94.1%;  Pred. No. 0;
  Matches   16;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2394 ATATATATACATATATA 2410
              ||||||||| |||||||
```

```
Db          1 ATATATATATATATATA 17


RESULT 109
aav21967/c
;  TOIG of: aav21967  check: 2825  from: 1  to: 18
;
; ID   AAV21967 standard; DNA; 18 BP.
; XX
; AC   AAV21967;
; XX
; DT   14-JUL-1998  (first entry)
; XX
; DE   Nuclease resistant antisense oligo NBT 140 targeted against 1AT19.
; XX
; KW   Nuclease resistant; bacterial infection; antibiotic; target;
; KW   veterinary medicine; treatment; human; industrial process;
; KW   bacterial control; ss.
; XX
; OS   Synthetic.
; XX
; PN   WO9803533-A1.
; XX
; PD   29-JAN-1998.
; XX
; PF   23-JUL-1997;   97WO-US12961.
; XX
; PR   24-JUL-1996;   96US-0685575.
; XX
; PA   (OLIG-) OLIGOS ETC & OLIGOS THERAPEUTICS INC.
; XX
; PI   Arrow A,  Dale RMK,  Thompson TL;
; XX
; DR   WPI; 1998-120687/11.
; XX
; PT   Treating bacterial infections in humans or animals with
; PT   oligo:nucleotide(s) - resistant to nuclease and targetted to
; PT   bacterial nucleic acid or proteins, also conjugates of these
; PT   oligo:nucleotide(s) with antibiotics
; XX
; PS   Claim 49; Page 87; 163pp; English.
; XX
; CC   This antisense oligonucleotide is nuclease resistant and can be used in
; CC   the treatment of animals, including humans, having a bacterial infection.
; CC   The treatment comprises administration of such nuclease resistant
; CC   oligonucleotides, targeted to a nucleic acid or protein of the bacterium,
; CC   and formulated with a carrier. A compound comprising this nuclease
; CC   resistant oligonucleotide can be covalently linked to an antibiotic. The
; CC   method is used to treat infections by a wide variety of Gram-positive and
; CC   Gram-negative, or acid-fast, bacteria, in human and veterinary medicine.
; CC   The methods are particularly used in immuno-compromised individuals
; CC   (e.g. patients with acquired immunodeficiency syndrome or those receiving
; CC   chemotherapy or radiation therapy), optionally in combination with, or
; CC   fused to, antiviral or other antimicrobial oligonucleotides. Apart from
; CC   therapeutic use, the oligonucleotides can be used to control bacteria
; CC   in laboratory cultures, foods, beverages and industrial processes. The
; CC   oligonucleotides are specific for bacteria, without affecting metabolism
; CC   in mammalian cells. They may also activate RNase H and have a general,
; CC   non-specific immune-stimulating effect. The oligonucleotides can be
; CC   administered orally, intranasally, rectally, topically or by injection,
; CC   optionally coupled to an agent (e.g. carbohydrate or polyamine) that
; CC   enhances cellular uptake.
; XX
; SQ   Sequence 18 BP; 9 A; 0 C; 0 G; 9 T; 0 other;
;
;  AAV21967  Length: 18  October 16, 2003 08:46  Type: N  Check: 2825  ..
aav21967

  Query Match             0.3%;  Score 15.4;  DB 1;  Length 18;
  Best Local Similarity   94.1%;  Pred. No. 0;
  Matches   16;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       2394 ATATATATACATATATA 2410


Db          18 ATATATATATATATATA 2


RESULT 110
aah21968
;  TOIG of: aah21968  check: 5988  from: 1  to: 19
;
; ID   AAH21968 standard; DNA; 19 BP.
; XX
; AC   AAH21968;
; XX
; DT   16-AUG-2001  (first entry)
; XX
; DE   Mouse total gene expression analysis (TOGA) 3' sequencing primer SEQ:92.
; XX
; KW   Mouse; human; total gene expression analysis; TOGA; DST; EST;
; KW   digital sequence tag; expressed sequence tag; neuroleptic; antimanic;
; KW   central nervous system; antidepressant; gene therapy; diagnosis;
; KW   neuropsychiatric disorder; schizophrenia; bipolar disorder;
; KW   addiction related behaviour; chromosome identification; immune response;
; KW   PCR primer; probe; ss.
; XX
; OS   Mus musculus.
; XX
; PN   WO200130972 A2.
; XX
; PD   03-MAY-2001.
; XX
; PF   26-OCT-2000; 2000WO-US29680.
; XX
; PR   26-OCT-1999;   99US-0161379
; XX
; PA   (DIGI-) DIGITAL GENE TECHNOLOGIES INC.
; XX
; PI   Thomas EA,  Sutcliffe JG,  Pribyl TM,  Hilbush B,  Hasel KW;
; XX
; DR   WPI; 2001-300493/31.
; XX
; PT   New neuroleptic-regulated polynucleotides expressed in the central
; PT   nervous system for diagnosing and treating neuropsychiatric disorders
; PT   such as schizophrenia, bipolar disorder and addiction-related behavior
; PT   -
; XX
; PS   Example 1; Page 87; 210pp; English.
; XX
; CC   The present invention describes isolated neuroleptic-regulated nucleic
; CC   acid molecules. (I) have neuroleptic, antimanic and antidepressant
; CC   activities, and can be used in gene therapy. (II) polypeptides (II)
; CC   encoded by (I), or a host cell (III) comprising (I), are useful for
; CC   preventing, treating, modulating or ameliorating a medical condition
; CC   such as a neuropsychiatric disorder. (I) are useful as diagnostic agents
; CC   for diagnosing a pathological condition or susceptibility to a
; CC   pathological condition such as neuropsychiatric disorder e.g.
; CC   schizophrenia, a bipolar disorder or addiction-related behaviour. (I) are
; CC   useful for detecting the presence of a nucleic acid encoding a protein
; CC   in a mammalian tissue sample. (I) can be used as probes and primers, for
; CC   chromosome identification, to control gene expression through triple
; CC   helix formation or antisense DNA or RNA, in gene therapy to treat the
; CC   above mentioned disorders, identifying individuals from minute
; CC   biological samples, as an alternative to restriction fragment length
; CC   polymorphism (RFLP) and as polymorphic markers for forensic purposes.
; CC   (I) is also useful as molecular weight markers on Southern gels,
; CC   diagnostic probes for the presence of specific mRNA in a particular
; CC   cell type, as a probe to subtract-out known sequences in the process of
; CC   discovering novel polynucleotides, for selecting and making oligomers
; CC   for attachment to a gene chip or other support, to raise anti-DNA
; CC   antibodies using DNA immunisation technique, and as an antigen to
; CC   elicit an immune response. AAH21877 to AAH21984, AAB98083 and AAB98084
; CC   represent sequences used in the exemplification of the present invention.
; XX
; SQ   Sequence 19 BP; 0 A; 0 C; 0 G; 18 T; 1 other;
;
```

```
;  AAH21968  Length: 19  October 16, 2003 08:46  Type: N  Check: 5998  ..
aah21968

  Query Match             0.3%;  Score 15.2;  DB 1;  Length 19;
  Best Local Similarity   93.8%;  Pred. No. 0;
  Matches   15;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4501 TTTTTTTTTTTTTTG 4516
              |||||||||||||||:
Db          4 TTTTTTTTTTTTTTV 19


RESULT 111
aah21968/c
;  TOIG of: aah21968  check: 5998  from: 1  to: 19
;
; ID   AAH21968 standard; DNA; 19 BP.
; XX
; AC   AAH21968;
; XX
; DT   16-AUG-2001  (first entry)
; XX
; DE   Mouse total gene expression analysis (TOGA) 3' sequencing primer SEQ:92.
; XX
; KW   Mouse; human; total gene expression analysis; TOGA; DST; EST;
; KW   digital sequence tag; expressed sequence tag; neuroleptic; antimanic;
; KW   central nervous system; antidepressant; gene therapy; diagnosis;
; KW   neuropsychiatric disorder; schizophrenia; bipolar disorder;
; KW   addiction-related behaviour; chromosome identification; immune response;
; KW   PCR primer; probe; ss.
; XX
; OS   Mus musculus.
; XX
; PN   WO200130972-A2.
; XX
; PD   03-MAY-2001.
; XX
; PF   26-OCT-2000; 2000WO-US29690.
; XX
; PR   26-OCT-1999;   99US-0161379.
; XX
; PA   (DIGI-) DIGITAL GENE TECHNOLOGIES INC.
; XX
; PI   Thomas EA,  Sutcliffe JG,  Pribyl TM,  Hilbush B,  Hasel KW;
; XX
; DR   WPI; 2001-300499/31.
; XX
; PT   New neuroleptic-regulated polynucleotides expressed in the central
; PT   nervous system for diagnosing and treating neuropsychiatric disorders
; PT   such as schizophrenia, bipolar disorder and addiction-related behavior
; PT   -
; XX
; PS   Example 1; Page 87; 210pp; English.
; XX
; CC   The present invention describes isolated neuroleptic-regulated nucleic
; CC   acid molecules. (I) have neuroleptic, antimanic and antidepressant
; CC   activities, and can be used in gene therapy. (I), polypeptides (II)
; CC   encoded by (I), or a host cell (III) comprising (I), are useful for
; CC   preventing, treating, modulating or ameliorating a medical condition
; CC   such as a neuropsychiatric disorder. (I) are useful as diagnostic agents
; CC   for diagnosing a pathological condition or susceptibility to a
; CC   pathological condition such as neuropsychiatric disorder e.g.
; CC   schizophrenia, a bipolar disorder or addiction-related behaviour. (I) are
; CC   useful for detecting the presence of a nucleic acid encoding a protein
; CC   in a mammalian tissue sample. (I) can be used as probes and primers, for
; CC   chromosome identification, to control gene expression through triple
; CC   helix formation or antisense DNA or RNA, in gene therapy to treat the
; CC   above mentioned disorders, identifying individuals from minute
; CC   biological samples, as an alternative to restriction fragment length
; CC   polymorphism (RFLP) and as polymorphic markers for forensic purposes.
; CC   (I) is also useful as molecular weight markers on Southern gels,
; CC   diagnostic probes for the presence of specific mRNA in a particular
; CC   cell type, as a probe to subtract-out known sequences in the process of
; CC   discovering novel polynucleotides, for selecting and making oligomers
; CC   for attachment to a gene chip or other support, to raise anti-DNA
; CC   antibodies using DNA immunisation technique, and as an antigen to
; CC   elicit an immune response. AAH21877 to AAH21984, AAB98083 and AAB98084
; CC   represent sequences used in the exemplification of the present invention.
; XX
; SQ   Sequence 19 BP; 0 A; 0 C; 0 G; 18 T; 1 other;
;
;  AAH21968  Length: 19  October 16, 2003 08:46  Type: N  Check: 5998  ..
aah21968

  Query Match             0.3%;  Score 15.2;  DB 1;  Length 19;
  Best Local Similarity   93.8%;  Pred. No. 0;
  Matches   15;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5206 TAAAAAAAAAAAAAA 5221
              :|||||||||||||||
Db         19 BAAAAAAAAAAAAAA 4


RESULT 112
aav07752
;  TOIG of: aav07752  check: 7450  from: 1  to: 20
;
; ID   AAV07752 standard; DNA; 20 BP.
; XX
; AC   AAV07752;
; XX
; DT   07-DEC-1998  (first entry)
; XX
; DE   Phosphorothioate oligonucleotide.
; XX
; KW   phosphorothioate; sulphurisation; heterocycle; automated synthesis;
; KW   antisense; EDITH; Beaucage reagent; ss.
; XX
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   misc_feature    1. .20
; FT                   /*tag= a
; FT                   /note= "phosphorothioare internucleotide linkages"
; XX
; PN   WO9741130-A2.
; XX
; PD   06-NOV-1997.
; XX
; PF   29-APR-1997;   97WO-US07118.
; XX
; PR   30-APR-1996;   96US-0641920.
; XX
; PA   (LOUU ) UNIV LOUISIANA STATE & AGRIC.
; PA   (MINU ) UNIV MINNESOTA.
; XX
; PI   Barany G,  Chen L,  Hammer RP,  Musier-Forsyth K,  Xu Q;
; XX
; DR   WPI; 1997-549671/50.
; XX
; PT   Sulphurisation of phosphorus-containing compounds, e.g.
; PT   oligo:nucleotide(s) - by contacting the compound with a
; PT   di:sulphide-containing five-membered heterocycle
; XX
; PS   Example 7; Page 30; 51pp; English.
; XX
; CC   The present invention provides a method for sulphurising phosphorus-
; CC   containing compounds. It comprises contacting the phosphorus-containing
; CC   compound which a 1,2,4-dithiazolidine-2,5-dione compound or a
; CC   3-substituted-1,2,4-dithiazolin-5-one compound. The method is especially
; CC   useful for incorporation of phosphorothioate linkages into biologically
; CC   important molecules such as DNA, RNA and phosphopeptides. Molecules
; CC   containing such linkages are useful e.g. as antisense compounds for
; CC   inhibiting gene expression, as reagents  for studying DNA-protein or RNA-
; CC   protein interactions, or as catalytic RNA. The present sequence
; CC   represents an oligonucleotide with phosphorothioate linkages prepared by
```

```
; CC   the method of the invention.
; XX
; SQ   Sequence 20 BP; 1 A; 0 C; 0 G; 19 U; 0 other;
;
;  AAV07752  Length: 20  October 16, 2003 08:46  Type: N  Check: 7450  ..
aav07752

  Query Match              0.3%;  Score 15.2;  DB 1;  Length 20;
  Best Local Similarity    5.0%;  Pred. No. 0;
  Matches    1;  Conservative   16;  Mismatches    3;  Indels    0;  Gaps    0;

Qy       2126 TTCTTTTCTTTTTTTCTTTA 2145
              :: :::: ::::::: :::|
Db          1 UUUUUUUUUUUUUUUUUUUA 20


RESULT 113
aaa07788
;  TOIG of: aaa07788  check: 80  from: 1  to: 15
;
; ID   AAA07788 standard; DNA; 15 BP.
; XX
; AC   AAA07788;
; XX
; DT   23-JUN-2000  (first entry)
; XX
; DE   Nucleic acid sequence of ODN-a.
; XX
; KW   Nucleomonomer; cancer; gene regulation; antisense technology; leukemia;
; KW   viral infection; inflammatory response; cellular proliferation;
; KW   psoriasis; duplex; ss.
; XX
; OS   Synthetic.
; XX
; PN   WO200011013-A1.
; XX
; PD   02-MAR-2000.
; XX
; PF   20-AUG-1999;   99WO-US19029.
; XX
; PR   22-AUG-1998;   98US-0097712.
; XX
; PA   (UYNE-) UNIV NEBRASKA.
; XX
; PI   Gold B;
; XX
; DR   WPI; 2000-246530/21.
; XX
; PT   Modified nucleomonomers, used in physiologically stable, non-toxic
; PT   oligomers used to inhibit expression of nucleic acids and in gene
; PT   regulation, antisense technology and diagnostics
; XX
; PS   Disclosure; Page 20; 42pp; English.
; XX
; CC   The invention provides modified nucleomonomers of specified formula and
; CC   their pharmaceutically acceptable salts. The nucleomonomers are used as
; CC   monomers in oligomers, which are used in pharmaceutical compositions to
; CC   inhibit expression of nucleic acid molecules including DNA and RNA in
; CC   cells such as bacterial, fungal, yeast, mammalian, cancer and virally-
; CC   infected cells. They are used in oligomers for gene regulation,
; CC   antisense technology, diagnostic applications to detect target sequences
; CC   in biological samples such as those containing pathogenic bacteria,
; CC   fungi and viruses, oncogenes, growth hormones and enzymes, to target
; CC   genes or encoded RNAs that encode enzymes, hormones, serum proteins,
; CC   adhesion molecules, receptor molecules, cytokines, oncogenes, growth
; CC   factors and interleukins associated with pathological conditions such as
; CC   inflammatory conditions, cardiovascular disorders, immune reactions,
; CC   cancer, viral infections and bacterial infections (see AAA07786 for
; CC   details of other uses for which the oligomers are suitable for).
; CC   Oligomers comprising the nucleomonomers exhibit increased duplex DNA
; CC   stability when hybridizing to target nucleic acid sequences, are
; CC   physiologically stable, non-toxic and able to penetrate into cells while
; CC   maintaining stringent base pair fidelity for target DNA sequences. The
; CC   oligomers demonstrate significant single- or double-stranded target
; CC   nucleic acid binding activity to form duplexes, triplexes or other forms
; CC   of stable association. Sequences AAA07788-803 represent oligonucleotides
; CC   forming a third strand along with the duplex sequences.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 15 T; 0 other;
;
;  AAA07788  Length: 15  October 16, 2003 08:46  Type: N  Check: 80  ..
aaa07788

  Query Match              0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity  100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4501 TTTTTTTTTTTTTTT 4515
              |||||||||||||||
Db          1 TTTTTTTTTTTTTTT 15


RESULT 114
aaa07788/c
;  TOIG of: aaa07788  check: 80  from: 1  to: 15
;
; ID   AAA07788 standard; DNA; 15 BP.
; XX
; AC   AAA07788;
; XX
; DT   23-JUN-2000  (first entry)
; XX
; DE   Nucleic acid sequence of ODN-a.
; XX
; KW   Nucleomonomer; cancer; gene regulation; antisense technology; leukemia;
; KW   viral infection; inflammatory response; cellular proliferation;
; KW   psoriasis; duplex; ss.
; XX
; OS   Synthetic.
; XX
; PN   WO200011013-A1.
; XX
; PD   02-MAR-2000.
; XX
; PF   20-AUG-1999;   99WO-US19029.
; XX
; PR   22-AUG-1998;   98US-0097712.
; XX
; PA   (UYNE-) UNIV NEBRASKA.
; XX
; PI   Gold B;
; XX
; DR   WPI; 2000-246530/21.
; XX
; PT   Modified nucleomonomers, used in physiologically stable, non-toxic
; PT   oligomers used to inhibit expression of nucleic acids and in gene
; PT   regulation, antisense technology and diagnostics
; XX
; PS   Disclosure; Page 20; 42pp; English.
; XX
; CC   The invention provides modified nucleomonomers of specified formula and
; CC   their pharmaceutically acceptable salts. The nucleomonomers are used as
; CC   monomers in oligomers, which are used in pharmaceutical compositions to
; CC   inhibit expression of nucleic acid molecules including DNA and RNA in
; CC   cells such as bacterial, fungal, yeast, mammalian, cancer and virally
; CC   infected cells. They are used in oligomers for gene regulation,
; CC   antisense technology, diagnostic applications to detect target sequences
; CC   in biological samples such as those containing pathogenic bacteria,
; CC   fungi and viruses, oncogenes, growth hormones and enzymes, to target
; CC   genes or encoded RNAs that encode enzymes, hormones, serum proteins,
; CC   adhesion molecules, receptor molecules, cytokines, oncogenes, growth
; CC   factors and interleukins associated with pathological conditions such as
; CC   inflammatory conditions, cardiovascular disorders, immune reactions,
; CC   cancer, viral infections and bacterial infections (see AAA07786 for
; CC   details of other uses for which the oligomers are suitable for).
; CC   Oligomers comprising the nucleomonomers exhibit increased duplex DNA
```

; CC stability when hybridizing to target nucleic acid sequences, are
; CC physiologically stable, non-toxic and able to penetrate into cells while
; CC maintaining stringent base pair fidelity for target DNA sequences. The
; CC oligomers demonstrate significant single- or double-stranded target
; CC nucleic acid binding activity to form duplexes, triplexes or other forms
; CC of stable association. Sequences AAA07788-803 represent oligonucleotides
; CC forming a third strand along with the duplex sequences.
; XX
; SQ Sequence 15 BP; 0 A; 0 C; 0 G; 15 T; 0 other;
;
; AAA07788 Length: 15 October 16, 2003 08:46 Type: N Check: 80 ..
aaa07788

Query Match 0.3%; Score 15; DB 1; Length 15;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 15; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 5207 AAAAAAAAAAAAAAA 5221
||||||||||||||||
Db 15 AAAAAAAAAAAAAAA 1

RESULT 115
aaa07789
; TOIG of: aaa07789 check: 88 from: 1 to: 15
;
; ID AAA07789 standard; DNA; 15 BP.
; XX
; AC AAA07789;
; XX
; DT 23-JUN-2000 (first entry)
; XX
; DE Nucleic acid sequence of ODN-b.
; XX
; KW Nucleomonomer; cancer; gene regulation; antisense technology; leukemia;
; KW viral infection; inflammatory response; cellular proliferation;
; KW psoriasis; duplex; ss.
; XX
; OS Synthetic.
; XX
; PN WO200011013-A1.
; XX
; PD 02-MAR-2000.
; XX
; PF 20-AUG-1999; 99WO-US19029.
; XX
; PR 22-AUG-1998; 98US-0097712.
; XX
; PA (UYNE-) UNIV NEBRASKA.
; XX
; PI Gold B;
; XX
; DR WPI; 2000-246530/21.
; XX
; PT Modified nucleomonomers, used in physiologically stable, non-toxic
; PT oligomers used to inhibit expression of nucleic acids and in gene
; PT regulation, antisense technology and diagnostics -
; XX
; PS Disclosure; Page 20; 42pp; English.
; XX
; CC The invention provides modified nucleomonomers of specified formula and
; CC their pharmaceutically acceptable salts. The nucleomonomers are used as
; CC monomers in oligomers, which are used in pharmaceutical compositions to
; CC inhibit expression of nucleic acid molecules including DNA and RNA in
; CC cells such as bacterial, fungal, yeast, mammalian, cancer and virally-
; CC infected cells. They are used in oligomers for gene regulation,
; CC antisense technology, diagnostic applications to detect target sequences
; CC in biological samples such as those containing pathogenic bacteria,
; CC fungi and viruses, oncogenes, growth hormones and enzymes, to target
; CC genes or encoded RNAs that encode enzymes, hormones, serum proteins,
; CC adhesion molecules, receptor molecules, cytokines, oncogenes, growth
; CC factors and interleukins associated with pathological conditions such as
; CC inflammatory conditions, cardiovascular disorders, immune reactions,
; CC cancer, viral infections and bacterial infections (see AAA07786 for
; CC details of other uses for which the oligomers are suitable for).
; CC Oligomers comprising the nucleomonomers exhibit increased duplex DNA
; CC stability when hybridizing to target nucleic acid sequences, are
; CC physiologically stable, non-toxic and able to penetrate into cells while
; CC maintaining stringent base pair fidelity for target DNA sequences. The
; CC oligomers demonstrate significant single- or double-stranded target
; CC nucleic acid binding activity to form duplexes, triplexes or other forms
; CC of stable association. Sequences AAA07788-803 represent oligonucleotides
; CC forming a third strand along with the duplex sequences.
; XX
; SQ Sequence 15 BP; 0 A; 0 C; 0 G; 14 T; 1 U; 0 other;
;
; AAA07789 Length: 15 October 16, 2003 08:46 Type: N Check: 88 ..
aaa07789

Query Match 0.3%; Score 15; DB 1; Length 15;
Best Local Similarity 93.3%; Pred. No. 0;
Matches 14; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 4501 TTTTTTTTTTTTTTT 4515
|||:||||:|.||||
Db 1 TTTTTTTUTTTTTTT 15

RESULT 116
aaa07789/c
; TOIG of: aaa07789 check: 88 from: 1 to: 15
;
; ID AAA07789 standard; DNA; 15 BP.
; XX
; AC AAA07789;
; XX
; DT 23-JUN-2000 (first entry)
; XX
; DE Nucleic acid sequence of ODN-b.
; XX
; KW Nucleomonomer; cancer; gene regulation; antisense technology; leukemia;
; KW viral infection; inflammatory response; cellular proliferation;
; KW psoriasis; duplex; ss.
; XX
; OS Synthetic.
; XX
; PN WO200011013-A1.
; XX
; PD 02-MAR-2000.
; XX
; PF 20-AUG-1999; 99WO-US19029.
; XX
; PR 22-AUG-1998; 98US-0097712.
; XX
; PA (UYNE-) UNIV NEBRASKA.
; XX
; PI Gold B;
; XX
; DR WPI; 2000-246530/21.
; XX
; PT Modified nucleomonomers, used in physiologically stable, non-toxic
; PT oligomers used to inhibit expression of nucleic acids and in gene
; PT regulation, antisense technology and diagnostics -
; XX
; PS Disclosure; Page 20; 42pp; English.
; XX
; CC The invention provides modified nucleomonomers of specified formula and
; CC their pharmaceutically acceptable salts. The nucleomonomers are used as
; CC monomers in oligomers, which are used in pharmaceutical compositions to
; CC inhibit expression of nucleic acid molecules including DNA and RNA in
; CC cells such as bacterial, fungal, yeast, mammalian, cancer and virally-
; CC infected cells. They are used in oligomers for gene regulation,
; CC antisense technology, diagnostic applications to detect target sequences
; CC in biological samples such as those containing pathogenic bacteria,
; CC fungi and viruses, oncogenes, growth hormones and enzymes, to target
; CC genes or encoded RNAs that encode enzymes, hormones, serum proteins,

; CC adhesion molecules, receptor molecules, cytokines, oncogenes, growth
; CC factors and interleukins associated with pathological conditions such as
; CC inflammatory conditions, cardiovascular disorders, immune reactions,
; CC cancer, viral infections and bacterial infections (see AAA07786 for
; CC details of other uses for which the oligomers are suitable for).
; CC Oligomers comprising the nucleomonomers exhibit increased duplex DNA
; CC stability when hybridizing to target nucleic acid sequences, are
; CC physiologically stable, non-toxic and able to penetrate into cells while
; CC maintaining stringent base pair fidelity for target DNA sequences. The
; CC oligomers demonstrate significant single- or double-stranded target
; CC nucleic acid binding activity to form duplexes, triplexes or other forms
; CC of stable association. Sequences AAA07788-803 represent oligonucleotides
; CC forming a third strand along with the duplex sequences.
; XX
; SQ Sequence 15 BP; 0 A; 0 C; 0 G; 14 T; 1 U; 0 other;
;
; AAA07789 Length: 15 October 16, 2003 08:46 Type: N Check: 88 ..
aaa07789

Query Match 0.3%; Score 15; DB 1; Length 15;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 15; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 5207 AAAAAAAAAAAAAAA 5221
||||||||||||||||
Db 15 AAAAAAAAAAAAAAA 1

RESULT 117
aaa07790
; TOIG of: aaa07790 check: 96 from: 1 to: 15
;
; ID AAA07790 standard; DNA; 15 BP.
; XX
; AC AAA07790;
; XX
; DT 23-JUN-2000 (first entry)
; XX
; DE Nucleic acid sequence of ODN-c.
; XX
; KW Nucleomonomer; cancer; gene regulation; antisense technology; leukemia;
; KW viral infection; inflammatory response; cellular proliferation;
; KW psoriasis; duplex; ss.
; XX
; OS Synthetic.
; XX
; PN WO200011013-A1.
; XX
; PD 02-MAR-2000.
; XX
; PF 20-AUG-1999; 99WO-US19029.
; XX
; PR 22-AUG-1998; 98US-0097712.
; XX
; PA (UYNE-) UNIV NEBRASKA.
; XX
; PI Gold B;
; XX
; DR WPI; 2000-246530/21.
; XX
; PT Modified nucleomonomers, used in physiologically stable, non-toxic
; PT oligomers used to inhibit expression of nucleic acids and in gene
; PT regulation, antisense technology and diagnostics -
; XX
; PS Disclosure; Page 20; 42pp; English.
; XX
; CC The invention provides modified nucleomonomers of specified formula and
; CC their pharmaceutically acceptable salts. The nucleomonomers are used as
; CC monomers in oligomers, which are used in pharmaceutical compositions to
; CC inhibit expression of nucleic acid molecules including DNA and RNA in
; CC cells such as bacterial, fungal, yeast, mammalian, cancer and virally-
; CC infected cells. They are used in oligomers for gene regulation,
; CC antisense technology, diagnostic applications to detect target sequences
; CC in biological samples such as those containing pathogenic bacteria,
; CC fungi and viruses, oncogenes, growth hormones and enzymes, to target
; CC genes or encoded RNAs that encode enzymes, hormones, serum proteins,
; CC adhesion molecules, receptor molecules, cytokines, oncogenes, growth
; CC factors and interleukins associated with pathological conditions such as
; CC inflammatory conditions, cardiovascular disorders, immune reactions,
; CC cancer, viral infections and bacterial infections (see AAA07786 for
; CC details of other uses for which the oligomers are suitable for).
; CC Oligomers comprising the nucleomonomers exhibit increased duplex DNA
; CC stability when hybridizing to target nucleic acid sequences, are
; CC physiologically stable, non-toxic and able to penetrate into cells while
; CC maintaining stringent base pair fidelity for target DNA sequences. The
; CC oligomers demonstrate significant single- or double-stranded target
; CC nucleic acid binding activity to form duplexes, triplexes or other forms
; CC of stable association. Sequences AAA07788-803 represent oligonucleotides
; CC forming a third strand along with the duplex sequences.
; XX
; SQ Sequence 15 BP; 0 A; 0 C; 0 G; 13 T; 2 U; 0 other;
;
; AAA07790 Length: 15 October 16, 2003 08:46 Type: N Check: 96 ..
aaa07790

Query Match 0.3%; Score 15; DB 1; Length 15;
Best Local Similarity 86.7%; Pred. No. 0;
Matches 13; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Qy 4501 TTTTTTTTTTTTTTT 4515
|:|||:||:|||
Db 1 TTTTTUTTTUTTTTT 15

RESULT 118
aaa07790/c
; TOIG of: aaa07790 check: 96 from: 1 to: 15
;
; ID AAA07790 standard; DNA; 15 BP.
; XX
; AC AAA07790;
; XX
; DT 23-JUN-2000 (first entry)
; XX
; DE Nucleic acid sequence of ODN c.
; XX
; KW Nucleomonomer; cancer; gene regulation; antisense technology; leukemia;
; KW viral infection; inflammatory response; cellular proliferation;
; KW psoriasis; duplex; ss.
; XX
; OS Synthetic.
; XX
; PN WO200011013-A1.
; XX
; PD 02-MAR-2000.
; XX
; PF 20-AUG-1999; 99WO-US19029.
; XX
; PR 22-AUG-1998; 98US-0097712.
; XX
; PA (UYNE-) UNIV NEBRASKA.
; XX
; PI Gold B;
; XX
; DR WPI; 2000-246530/21.
; XX
; PT Modified nucleomonomers, used in physiologically stable, non-toxic
; PT oligomers used to inhibit expression of nucleic acids and in gene
; PT regulation, antisense technology and diagnostics -
; XX
; PS Disclosure; Page 20; 42pp; English.
; XX
; CC The invention provides modified nucleomonomers of specified formula and
; CC their pharmaceutically acceptable salts. The nucleomonomers are used as
; CC monomers in oligomers, which are used in pharmaceutical compositions to
; CC inhibit expression of nucleic acid molecules including DNA and RNA in

```
; CC   cells such as bacterial, fungal, yeast, mammalian, cancer and virally-
; CC   infected cells. They are used in oligomers for gene regulation,
; CC   antisense technology, diagnostic applications to detect target sequences
; CC   in biological samples such as those containing pathogenic bacteria,
; CC   fungi and viruses, oncogenes, growth hormones and enzymes, to target
; CC   genes or encoded RNAs that encode enzymes, hormones, serum proteins,
; CC   adhesion molecules, receptor molecules, cytokines, oncogenes, growth
; CC   factors and interleukins associated with pathological conditions such as
; CC   inflammatory conditions, cardiovascular disorders, immune reactions,
; CC   cancer, viral infections and bacterial infections (see AAA07786 for
; CC   details of other uses for which the oligomers are suitable for).
; CC   Oligomers comprising the nucleomonomers exhibit increased duplex DNA
; CC   stability when hybridizing to target nucleic acid sequences, are
; CC   physiologically stable, non-toxic and able to penetrate into cells while
; CC   maintaining stringent base pair fidelity for target DNA sequences. The
; CC   oligomers demonstrate significant single- or double-stranded target
; CC   nucleic acid binding activity to form duplexes, triplexes or other forms
; CC   of stable association. Sequences AAA07788-803 represent oligonucleotides
; CC   forming a third strand along with the duplex sequences.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 13 T; 2 U; 0 other;
;
;  AAA07790  Length: 15  October 16, 2003 08:46  Type: N  Check: 96  ..
aaa07790

  Query Match             0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5207 AAAAAAAAAAAAAAA 5221
              |||||||||||||||
Db         15 AAAAAAAAAAAAAAA 1


RESULT 119
aaa07791
;  TOIG of: aaa07791  check: 112  from: 1  to: 15
;
; ID   AAA07791 standard; DNA; 15 BP.
; XX
; AC   AAA07791;
; XX
; DT   23-JUN-2000  (first entry)
; XX
; DE   Nucleic acid sequence of ODN-d.
; XX
; KW   Nucleomonomer; cancer; gene regulation; antisense technology; leukemia;
; KW   viral infection; inflammatory response; cellular proliferation;
; KW   psoriasis; duplex; ss.
; XX
; OS   Synthetic.
; XX
; PN   WO200011013-A1.
; XX
; PD   02-MAR-2000.
; XX
; PF   20-AUG-1999;   99WO-US19029.
; XX
; PR   22-AUG-1998;   98US-0097712.
; XX
; PA   (UYNE-) UNIV NEBRASKA.
; XX
; PI   Gold B;
; XX
; DR   WPI; 2000-246530/21.
; XX
; PT   Modified nucleomonomers, used in physiologically stable, non-toxic
; PT   oligomers used to inhibit expression of nucleic acids and in gene
; PT   regulation, antisense technology and diagnostics -
; XX
; PS   Disclosure; Page 20; 42pp; English.
; XX
; CC   The invention provides modified nucleomonomers of specified formula and
; CC   their pharmaceutically acceptable salts. The nucleomonomers are used as
; CC   monomers in oligomers, which are used in pharmaceutical compositions to
; CC   inhibit expression of nucleic acid molecules including DNA and RNA in
; CC   cells such as bacterial, fungal, yeast, mammalian, cancer and virally
; CC   infected cells. They are used in oligomers for gene regulation,
; CC   antisense technology, diagnostic applications to detect target sequences
; CC   in biological samples such as those containing pathogenic bacteria,
; CC   fungi and viruses, oncogenes, growth hormones and enzymes, to target
; CC   genes or encoded RNAs that encode enzymes, hormones, serum proteins,
; CC   adhesion molecules, receptor molecules, cytokines, oncogenes, growth
; CC   factors and interleukins associated with pathological conditions such as
; CC   inflammatory conditions, cardiovascular disorders, immune reactions,
; CC   cancer, viral infections and bacterial infections (see AAA07786 for
; CC   details of other uses for which the oligomers are suitable for).
; CC   Oligomers comprising the nucleomonomers exhibit increased duplex DNA
; CC   stability when hybridizing to target nucleic acid sequences, are
; CC   physiologically stable, non-toxic and able to penetrate into cells while
; CC   maintaining stringent base pair fidelity for target DNA sequences. The
; CC   oligomers demonstrate significant single- or double-stranded target
; CC   nucleic acid binding activity to form duplexes, triplexes or other forms
; CC   of stable association. Sequences AAA07788-803 represent oligonucleotides
; CC   forming a third strand along with the duplex sequences.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 11 T; 4 U; 0 other;
;
;  AAA07791  Length: 15  October 16, 2003 08:46  Type: N  Check: 112  ..
aaa07791

  Query Match             0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   73.3%;  Pred. No. 0;
  Matches   11;  Conservative    4;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4501 TTTTTTTTTTTTTTT 4515
              :||||:|||:||||:
Db          1 UTTTTUTTTUTTTTU 15


RESULT 120
aaa07791/c
;  TOIG of: aaa07791  check: 112  from: 1  to: 15
;
; ID   AAA07791 standard; DNA; 15 BP.
; XX
; AC   AAA07791;
; XX
; DT   23-JUN-2000  (first entry)
; XX
; DE   Nucleic acid sequence of ODN-d.
; XX
; KW   Nucleomonomer; cancer; gene regulation; antisense technology; leukemia;
; KW   viral infection; inflammatory response; cellular proliferation;
; KW   psoriasis; duplex; ss.
; XX
; OS   Synthetic.
; XX
; PN   WO200011013-A1.
; XX
; PD   02-MAR-2000.
; XX
; PF   20-AUG-1999;   99WO-US19029.
; XX
; PR   22-AUG-1998;   98US-0097712.
; XX
; PA   (UYNE-) UNIV NEBRASKA.
; XX
; PI   Gold B;
; XX
; DR   WPI; 2000-246530/21.
; XX
; PT   Modified nucleomonomers, used in physiologically stable, non-toxic
; PT   oligomers used to inhibit expression of nucleic acids and in gene
; PT   regulation, antisense technology and diagnostics -
; XX
```

```
; PS   Disclosure; Page 20; 42pp; English.
; XX
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; CC   their pharmaceutically acceptable salts. The nucleomonomers are used as
; CC   monomers in oligomers, which are used in pharmaceutical compositions to
; CC   inhibit expression of nucleic acid molecules including DNA and RNA in
; CC   cells such as bacterial, fungal, yeast, mammalian, cancer and virally-
; CC   infected cells. They are used in oligomers for gene regulation,
; CC   antisense technology, diagnostic applications to detect target sequences
; CC   in biological samples such as those containing pathogenic bacteria,
; CC   fungi and viruses, oncogenes, growth hormones and enzymes, to target
; CC   genes or encoded RNAs that encode enzymes, hormones, serum proteins,
; CC   adhesion molecules, receptor molecules, cytokines, oncogenes, growth
; CC   factors and interleukins associated with pathological conditions such as
; CC   inflammatory conditions, cardiovascular disorders, immune reactions,
; CC   cancer, viral infections and bacterial infections (see AAA07786 for
; CC   details of other uses for which the oligomers are suitable for).
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; CC   physiologically stable, non-toxic and able to penetrate into cells while
; CC   maintaining stringent base pair fidelity for target DNA sequences. The
; CC   oligomers demonstrate significant single- or double-stranded target
; CC   nucleic acid binding activity to form duplexes, triplexes or other forms
; CC   of stable association. Sequences AAA07788-803 represent oligonucleotides
; CC   forming a third strand along with the duplex sequences.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 11 T; 4 U; 0 other;
;
;  AAA07791  Length: 15  October 16, 2003 08:46  Type: N  Check: 112  ..
aaa07791

  Query Match             0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5207 AAAAAAAAAAAAAAA 5221
             |||||||||||||||
Db         15 AAAAAAAAAAAAAAA 1


RESULT 121
aaa07792
;  TOIG of: aaa07792  check: 96  from: 1  to: 15
;
; ID   AAA07792 standard; DNA; 15 BP.
; XX
; AC   AAA07792;
; XX
; DT   23-JUN-2000  (first entry)
; XX
; DE   Nucleic acid sequence of ODN-e.
; XX
; KW   Nucleomonomer; cancer; gene regulation; antisense technology; leukemia;
; KW   viral infection; inflammatory response; cellular proliferation;
; KW   psoriasis; duplex; ss.
; XX
; OS   Synthetic.
; XX
; PN   WO200011013-A1.
; XX
; PD   02-MAR-2000.
; XX
; PF   20-AUG-1999;   99WO-US19029.
; XX
; PR   22-AUG-1998;   98US-0097712.
; XX
; PA   (UYNE-) UNIV NEBRASKA.
; XX
; PI   Gold B;
; XX
; DR   WPI; 2000-246530/21.
; XX
; PT   Modified nucleomonomers, used in physiologically stable, non-toxic
; PT   oligomers used to inhibit expression of nucleic acids and in gene
; PT   regulation, antisense technology and diagnostics -
; XX
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; CC   their pharmaceutically acceptable salts. The nucleomonomers are used as
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; CC   cells such as bacterial, fungal, yeast, mammalian, cancer and virally-
; CC   infected cells. They are used in oligomers for gene regulation,
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; CC   in biological samples such as those containing pathogenic bacteria,
; CC   fungi and viruses, oncogenes, growth hormones and enzymes, to target
; CC   genes or encoded RNAs that encode enzymes, hormones, serum proteins,
; CC   adhesion molecules, receptor molecules, cytokines, oncogenes, growth
; CC   factors and interleukins associated with pathological conditions such as
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; CC   maintaining stringent base pair fidelity for target DNA sequences. The
; CC   oligomers demonstrate significant single- or double-stranded target
; CC   nucleic acid binding activity to form duplexes, triplexes or other forms
; CC   of stable association. Sequences AAA07788-803 represent oligonucleotides
; CC   forming a third strand along with the duplex sequences.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 13 T; 2 U; 0 other;
;
;  AAA07792  Length: 15  October 16, 2003 08:46  Type: N  Check: 96  ..
aaa07792

  Query Match             0.4%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   86.7%;  Pred. No. 0;
  Matches   13;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4501 TTTTTTTTTTTTTTT 4515
             :|||:|||:|:||:
Db          1 UTTTTTTTTTTTTTU 15


RESULT 122
aaa07792/c
;  TOIG of: aaa07792  check: 96  from: 1  to: 15
;
; ID   AAA07792 standard; DNA; 15 BP.
; XX
; AC   AAA07792;
; XX
; DT   23-JUN-2000  (first entry)
; XX
; DE   Nucleic acid sequence of ODN-e.
; XX
; KW   Nucleomonomer; cancer; gene regulation; antisense technology; leukemia;
; KW   viral infection; inflammatory response; cellular proliferation;
; KW   psoriasis; duplex; ss.
; XX
; OS   Synthetic
; XX
; PN   WO200011013-A1.
; XX
; PD   02-MAR-2000.
; XX
; PF   20-AUG-1999;   99WO-US19029.
; XX
; PR   22-AUG-1998;   98US-0097712.
; XX
; PA   (UYNE-) UNIV NEBRASKA.
; XX
; PI   Gold B;
; XX
```

```
; DR   WPI; 2000-246530/21.
; XX
; PT   Modified nucleomonomers, used in physiologically stable, non-toxic
; PT   oligomers used to inhibit expression of nucleic acids and in gene
; PT   regulation, antisense technology and diagnostics -
; XX
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; CC   cells such as bacterial, fungal, yeast, mammalian, cancer and virally-
; CC   infected cells. They are used in oligomers for gene regulation,
; CC   antisense technology, diagnostic applications to detect target sequences
; CC   in biological samples such as those containing pathogenic bacteria,
; CC   fungi and viruses, oncogenes, growth hormones and enzymes, to target
; CC   genes or encoded RNAs that encode enzymes, hormones, serum proteins,
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; CC   factors and interleukins associated with pathological conditions such as
; CC   inflammatory conditions, cardiovascular disorders, immune reactions,
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; CC   oligomers demonstrate significant single- or double-stranded target
; CC   nucleic acid binding activity to form duplexes, triplexes or other forms
; CC   of stable association. Sequences AAA07788-803 represent oligonucleotides
; CC   forming a third strand along with the duplex sequences.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 13 T; 2 U; 0 other;
;
;  AAA07792  Length: 15  October 16, 2003 08:46  Type: N  Check: 96  ..
aaa07792

  Query Match             0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5207 AAAAAAAAAAAAAAA 5221
              |||||||||||||||
Db         15 AAAAAAAAAAAAAAA 1


RESULT 123
aaa07793
;  TOIG of: aaa07793  check: 200  from: 1  to: 15
;
; ID   AAA07793 standard; DNA; 15 BP.
; XX
; AC   AAA07793;
; XX
; DT   23-JUN-2000  (first entry)
; XX
; DE   Nucleic acid sequence of ODN-f.
; XX
; KW   Nucleomonomer; cancer; gene regulation; antisense technology; leukemia;
; KW   viral infection; inflammatory response; cellular proliferation;
; KW   psoriasis; duplex; ss.
; XX
; OS   Synthetic.
; XX
; PN   WO200011013-A1.
; XX
; PD   02-MAR-2000.
; XX
; PF   20-AUG-1999;   99WO-US19029.
; XX
; PR   22-AUG-1998;   98US-0097712.
; XX
; PA   (UYNE-) UNIV NEBRASKA.
; XX
; PI   Gold B;
; XX
; DR   WPI; 2000-246530/21.
; XX
; PT   Modified nucleomonomers, used in physiologically stable, non-toxic
; PT   oligomers used to inhibit expression of nucleic acids and in gene
; PT   regulation, antisense technology and diagnostics -
; XX
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; CC   infected cells. They are used in oligomers for gene regulation,
; CC   antisense technology, diagnostic applications to detect target sequences
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; CC   fungi and viruses, oncogenes, growth hormones and enzymes, to target
; CC   genes or encoded RNAs that encode enzymes, hormones, serum proteins,
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; CC   factors and interleukins associated with pathological conditions such as
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; CC   of stable association. Sequences AAA07788-803 represent oligonucleotides
; CC   forming a third strand along with the duplex sequences.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 15 U; 0 other;
;
;  AAA07793  Length: 15  October 16, 2003 08:46  Type: N  Check: 200  ..
aaa07793

  Query Match             0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   0.0%;  Pred. No. 0;
  Matches    0;  Conservative   15;  Mismatches    0;  Indels    0;  Gaps    0;

Cy       4501 TTTTTTTTTTTTTTT 4515
              ...............
Db          1 UUUUUUUUUUUUUUU 15


RESULT 124
aaa07793/c
;  TOIG of: aaa07793  check: 200  from: 1  to: 15
;
; ID   AAA07793 standard; DNA; 15 BP.
; XX
; AC   AAA07793;
; XX
; DT   23-JUN-2000  (first entry)
; XX
; DE   Nucleic acid sequence of ODN-f.
; XX
; KW   Nucleomonomer; cancer; gene regulation; antisense technology; leukemia;
; KW   viral infection; inflammatory response; cellular proliferation;
; KW   psoriasis; duplex; ss.
; XX
; OS   Synthetic.
; XX
; PN   WO200011013-A1.
; XX
; PD   02-MAR-2000.
; XX
; PF   20-AUG-1999;   99WO-US19029.
; XX
```

```
; PR   22-AUG-1998;   98US-0097712.
; XX
; PA   (UYNE-) UNIV NEBRASKA.
; XX
; PI   Gold B;
; XX
; DR   WPI; 2000-246530/21.
; XX
; PT   Modified nucleomonomers, used in physiologically stable, non-toxic
; PT   oligomers used to inhibit expression of nucleic acids and in gene
; PT   regulation, antisense technology and diagnostics -
; XX
; PS   Disclosure; Page 20; 42pp; English.
; XX
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; CC   infected cells. They are used in oligomers for gene regulation,
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; CC   genes or encoded RNAs that encode enzymes, hormones, serum proteins,
; CC   adhesion molecules, receptor molecules, cytokines, oncogenes, growth
; CC   factors and interleukins associated with pathological conditions such as
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; CC   nucleic acid binding activity to form duplexes, triplexes or other forms
; CC   of stable association. Sequences AAA07788-803 represent oligonucleotides
; CC   forming a third strand along with the duplex sequences.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 15 U; 0 other;
;
;  AAA07793  Length: 15  October 16, 2003 08:46  Type: N  Check: 200  ..
aaa07793

  Query Match             0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5207 AAAAAAAAAAAAAAA 5221
              |||||||||||||||
Db         15 AAAAAAAAAAAAAAA 1


RESULT 125
aaa07794
;  TOIG of: aaa07794  check: 88  from: 1  to: 15
;
; ID   AAA07794 standard; DNA; 15 BP.
; XX
; AC   AAA07794;
; XX
; DT   23-JUN-2000  (first entry)
; XX
; DE   Nucleic acid sequence of ODN-g.
; XX
; KW   Nucleomonomer; cancer; gene regulation; antisense technology; leukemia;
; KW   viral infection; inflammatory response; cellular proliferation;
; KW   psoriasis; duplex; ss.
; XX
; OS   Synthetic.
; XX
; PN   WO200011013-A1.
; XX
; PD   02-MAR-2000.
; XX
; PF   20-AUG-1999;   99WO-US19029.
; XX
; PR   22-AUG-1998;   98US-0097712.
; XX
; PA   (UYNE-) UNIV NEBRASKA.
; XX
; PI   Gold B;
; XX
; DR   WPI; 2000-246530/21.
; XX
; PT   Modified nucleomonomers, used in physiologically stable, non-toxic
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; XX
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; XX
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; CC   in biological samples such as those containing pathogenic bacteria,
; CC   fungi and viruses, oncogenes, growth hormones and enzymes, to target
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; CC   adhesion molecules, receptor molecules, cytokines, oncogenes, growth
; CC   factors and interleukins associated with pathological conditions such as
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; CC   cancer, viral infections and bacterial infections (see AAA07786 for
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; CC   of stable association. Sequences AAA07788-803 represent oligonucleotides
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; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 14 T; 1 U; 0 other;
;
;  AAA07794  Length: 15  October 16, 2003 08:46  Type: N  Check: 88  ..
aaa07794

  Query Match             0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   93.3%;  Pred. No. 0;
  Matches   14;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4501 TTTTTTTTTTTTTTT 4515
              |||||||:|||||||
Db          1 TTTTTTTUTTTTTTT 15


RESULT 126
aaa07794/c
;  TOIG of: aaa07794  check: 88  from: 1  to: 15
;
; ID   AAA07794 standard; DNA; 15 BP.
; XX
; AC   AAA07794;
; XX
; DT   23-JUN-2000  (first entry)
; XX
; DE   Nucleic acid sequence of ODN-g.
; XX
; KW   Nucleomonomer; cancer; gene regulation; antisense technology; leukemia;
; KW   viral infection; inflammatory response; cellular proliferation;
; KW   psoriasis; duplex; ss.
; XX
; OS   Synthetic.
; XX
```

```
; PN   WO200011013-A1.
; XX
; PD   02-MAR-2000.
; XX
; PF   20-AUG-1999;   99WO-US19029.
; XX
; PR   22-AUG-1998;   98US-0097712.
; XX
; PA   (UYNE-) UNIV NEBRASKA.
; XX
; PI   Gold B;
; XX
; DR   WPI; 2000-246530/21.
; XX
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; CC   forming a third strand along with the duplex sequences.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 14 T; 1 U; 0 other;
;
;  AAA07794  Length: 15  October 16, 2003 08:46  Type: N  Check: 88  ..
aaa07794

  Query Match             0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5207 AAAAAAAAAAAAAAA 5221
              |||||||||||||||
Db         15 AAAAAAAAAAAAAAA 1


RESULT 127
aaa07795
;  TOIG of: aaa07795  check: 96  from: 1  to: 15
;
; ID   AAA07795 standard; DNA; 15 BP.
; XX
; AC   AAA07795;
; XX
; DT   23-JUN-2000  (first entry)
; XX
; DE   Nucleic acid sequence of ODN-h.
; XX
; KW   Nucleomonomer; cancer; gene regulation; antisense technology; leukemia;
; KW   viral infection; inflammatory response; cellular proliferation;
; KW   psoriasis; duplex; ss.
; XX
; OS   Synthetic.
; XX
; PN   WO200011013-A1.
; XX
; PD   02-MAR-2000.
; XX
; PF   20-AUG-1999;   99WO-US19029.
; XX
; PR   22-AUG-1998;   98US-0097712.
; XX
; PA   (UYNE-) UNIV NEBRASKA.
; XX
; PI   Gold B;
; XX
; DR   WPI; 2000-246530/21.
; XX
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; CC   infected cells. They are used in oligomers for gene regulation,
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; CC   genes or encoded RNAs that encode enzymes, hormones, serum proteins,
; CC   adhesion molecules, receptor molecules, cytokines, oncogenes, growth
; CC   factors and interleukins associated with pathological conditions such as
; CC   inflammatory conditions, cardiovascular disorders, immune reactions,
; CC   cancer, viral infections and bacterial infections (see AAA07786 for
; CC   details of other uses for which the oligomers are suitable for).
; CC   Oligomers comprising the nucleomonomers exhibit increased duplex DNA
; CC   stability when hybridizing to target nucleic acid sequences, are
; CC   physiologically stable, non-toxic and able to penetrate into cells while
; CC   maintaining stringent base pair fidelity for target DNA sequences. The
; CC   oligomers demonstrate significant single- or double-stranded target
; CC   nucleic acid binding activity to form duplexes, triplexes or other forms
; CC   of stable association. Sequences AAA07788-803 represent oligonucleotides
; CC   forming a third strand along with the duplex sequences.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 13 T; 2 U; 0 other;
;
;  AAA07795  Length: 15  October 16, 2003 08:46  Type: N  Check: 96  ..
aaa07795

  Query Match             0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   86.7%;  Pred. No. 0;
  Matches   13;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4501 TTTTTTTTTTTTTTT 4515
              |||||:|||::'|||'
Db          1 TTTTTUTTTUTTTTT 15


RESULT 128
aaa07795/c
;  TOIG of: aaa07795  check: 96  from: 1  to: 15
;
; ID   AAA07795 standard; DNA; 15 BP.
; XX
; AC   AAA07795;
; XX
; DT   23-JUN-2000  (first entry)
; XX
; DE   Nucleic acid sequence of ODN-h.
; XX
```

```
; KW   Nucleomonomer; cancer; gene regulation; antisense technology; leukemia;
; KW   viral infection; inflammatory response; cellular proliferation;
; KW   psoriasis; duplex; ss.
; XX
; OS   Synthetic.
; XX
; PN   WO200011013-A1.
; XX
; PD   02-MAR-2000.
; XX
; PF   20-AUG-1999;   99WO-US19029.
; XX
; PR   22-AUG-1998;   98US-0097712.
; XX
; PA   (UYNE-) UNIV NEBRASKA.
; XX
; PI   Gold B;
; XX
; DR   WPI; 2000-246530/21.
; XX
; PT   Modified nucleomonomers, used in physiologically stable, non-toxic
; PT   oligomers used to inhibit expression of nucleic acids and in gene
; PT   regulation, antisense technology and diagnostics -
; XX
; PS   Disclosure; Page 20; 42pp; English.
; XX
; CC   The invention provides modified nucleomonomers of specified formula and
; CC   their pharmaceutically acceptable salts. The nucleomonomers are used as
; CC   monomers in oligomers, which are used in pharmaceutical compositions to
; CC   inhibit expression of nucleic acid molecules including DNA and RNA in
; CC   cells such as bacterial, fungal, yeast, mammalian, cancer and virally-
; CC   infected cells. They are used in oligomers for gene regulation,
; CC   antisense technology, diagnostic applications to detect target sequences
; CC   in biological samples such as those containing pathogenic bacteria,
; CC   fungi and viruses, oncogenes, growth hormones and enzymes, to target
; CC   genes or encoded RNAs that encode enzymes, hormones, serum proteins,
; CC   adhesion molecules, receptor molecules, cytokines, oncogenes, growth
; CC   factors and interleukins associated with pathological conditions such as
; CC   inflammatory conditions, cardiovascular disorders, immune reactions,
; CC   cancer, viral infections and bacterial infections (see AAA07786 for
; CC   details of other uses for which the oligomers are suitable for).
; CC   Oligomers comprising the nucleomonomers exhibit increased duplex DNA
; CC   stability when hybridizing to target nucleic acid sequences, are
; CC   physiologically stable, non-toxic and able to penetrate into cells while
; CC   maintaining stringent base pair fidelity for target DNA sequences. The
; CC   oligomers demonstrate significant single- or double-stranded target
; CC   nucleic acid binding activity to form duplexes, triplexes or other forms
; CC   of stable association. Sequences AAA07788-803 represent oligonucleotides
; CC   forming a third strand along with the duplex sequences.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 13 T; 2 U; 0 other;
;
;  AAA07795  Length: 15  October 16, 2003 08:46  Type: N  Check: 96  ..
aaa07795

  Query Match             0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5207 AAAAAAAAAAAAAAA 5221
              |||||||||||||||
Db         15 AAAAAAAAAAAAAAA 1


RESULT 129
aaa07796
;  TOIG of: aaa07796  check: 112  from: 1  to: 15
;
; ID   AAA07796 standard; DNA; 15 BP.
; XX
; AC   AAA07796;
; XX
; DT   23-JUN-2000  (first entry)
; XX
; DE   Nucleic acid sequence of ODN-1.
; XX
; KW   Nucleomonomer; cancer; gene regulation; antisense technology; leukemia;
; KW   viral infection; inflammatory response; cellular proliferation;
; KW   psoriasis; duplex; ss.
; XX
; OS   Synthetic.
; XX
; PN   WO200011013-A1.
; XX
; PD   02-MAR-2000.
; XX
; PF   20-AUG-1999;   99WO-US19029.
; XX
; PR   22-AUG-1998;   98US-0097712.
; XX
; PA   (UYNE-) UNIV NEBRASKA.
; XX
; PI   Gold B;
; XX
; DR   WPI; 2000-246530/21.
; XX
; PT   Modified nucleomonomers, used in physiologically stable, non-toxic
; PT   oligomers used to inhibit expression of nucleic acids and in gene
; PT   regulation, antisense technology and diagnostics -
; XX
; PS   Disclosure; Page 20; 42pp; English.
; XX
; CC   The invention provides modified nucleomonomers of specified formula and
; CC   their pharmaceutically acceptable salts. The nucleomonomers are used as
; CC   monomers in oligomers, which are used in pharmaceutical compositions to
; CC   inhibit expression of nucleic acid molecules including DNA and RNA in
; CC   cells such as bacterial, fungal, yeast, mammalian, cancer and virally-
; CC   infected cells. They are used in oligomers for gene regulation,
; CC   antisense technology, diagnostic applications to detect target sequences
; CC   in biological samples such as those containing pathogenic bacteria,
; CC   fungi and viruses, oncogenes, growth hormones and enzymes, to target
; CC   genes or encoded RNAs that encode enzymes, hormones, serum proteins,
; CC   adhesion molecules, receptor molecules, cytokines, oncogenes, growth
; CC   factors and interleukins associated with pathological conditions such as
; CC   inflammatory conditions, cardiovascular disorders, immune reactions,
; CC   cancer, viral infections and bacterial infections (see AAA07786 for
; CC   details of other uses for which the oligomers are suitable for).
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; CC   stability when hybridizing to target nucleic acid sequences, are
; CC   physiologically stable, non-toxic and able to penetrate into cells while
; CC   maintaining stringent base pair fidelity for target DNA sequences. The
; CC   oligomers demonstrate significant single- or double-stranded target
; CC   nucleic acid binding activity to form duplexes, triplexes or other forms
; CC   of stable association. Sequences AAA07788-803 represent oligonucleotides
; CC   forming a third strand along with the duplex sequences.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 11 T; 4 U; 0 other;
;
;  AAA07796  Length: 15  October 16, 2003 08:46  Type: N  Check: 112  ..
aaa07796

  Query Match             0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   73.3%;  Pred. No. 0;
  Matches   11;  Conservative    4;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4501 TTTTTTTTTTTTTTT 4515
              :|||||:.|:|:'|:
Db          1 UTTTTUTTTUTTTTU 15


RESULT 130
aaa07796/c
;  TOIG of: aaa07796  check: 112  from: 1  to: 15
;
; ID   AAA07796 standard; DNA; 15 BP.
; XX
```

```
; AC   AAA07796;
; XX
; DT   23-JUN-2000  (first entry)
; XX
; DE   Nucleic acid sequence of ODN-i.
; XX
; KW   Nucleomonomer; cancer; gene regulation; antisense technology; leukemia;
; KW   viral infection; inflammatory response; cellular proliferation;
; KW   psoriasis; duplex; ss.
; XX
; OS   Synthetic.
; XX
; PN   WO200011013-A1.
; XX
; PD   02-MAR-2000.
; XX
; PF   20-AUG-1999;   99WO-US19029.
; XX
; PR   22-AUG-1998;   98US-0097712.
; XX
; PA   (UYNE-) UNIV NEBRASKA.
; XX
; PI   Gold B;
; XX
; DR   WPI; 2000-246530/21.
; XX
; PT   Modified nucleomonomers, used in physiologically stable, non-toxic
; PT   oligomers used to inhibit expression of nucleic acids and in gene
; PT   regulation, antisense technology and diagnostics -
; XX
; PS   Disclosure; Page 20; 42pp; English.
; XX
; CC   The invention provides modified nucleomonomers of specified formula and
; CC   their pharmaceutically acceptable salts. The nucleomonomers are used as
; CC   monomers in oligomers, which are used in pharmaceutical compositions to
; CC   inhibit expression of nucleic acid molecules including DNA and RNA in
; CC   cells such as bacterial, fungal, yeast, mammalian, cancer and virally-
; CC   infected cells. They are used in oligomers for gene regulation,
; CC   antisense technology, diagnostic applications to detect target sequences
; CC   in biological samples such as those containing pathogenic bacteria,
; CC   fungi and viruses, oncogenes, growth hormones and enzymes, to target
; CC   genes or encoded RNAs that encode enzymes, hormones, serum proteins,
; CC   adhesion molecules, receptor molecules, cytokines, oncogenes, growth
; CC   factors and interleukins associated with pathological conditions such as
; CC   inflammatory conditions, cardiovascular disorders, immune reactions,
; CC   cancer, viral infections and bacterial infections (see AAA07786 for
; CC   details of other uses for which the oligomers are suitable for).
; CC   Oligomers comprising the nucleomonomers exhibit increased duplex DNA
; CC   stability when hybridizing to target nucleic acid sequences, are
; CC   physiologically stable, non-toxic and able to penetrate into cells while
; CC   maintaining stringent base pair fidelity for target DNA sequences. The
; CC   oligomers demonstrate significant single- or double-stranded target
; CC   nucleic acid binding activity to form duplexes, triplexes or other forms
; CC   of stable association. Sequences AAA07788-803 represent oligonucleotides
; CC   forming a third strand along with the duplex sequences.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 11 T; 4 U; 0 other;
;
;  AAA07796  Length: 15  October 16, 2003 08:46  Type: N  Check: 112  ..
aaa07796

  Query Match             0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5207 AAAAAAAAAAAAAAA 5221
              |||||||||||||||
Db         15 AAAAAAAAAAAAAAA 1


RESULT 131
aaa07797
;  TOIG of: aaa07797  check: 96  from: 1  to: 15
;
; ID   AAA07797 standard; DNA; 15 BP.
; XX
; AC   AAA07797;
; XX
; DT   23-JUN-2000  (first entry)
; XX
; DE   Nucleic acid sequence of ODN-j.
; XX
; KW   Nucleomonomer; cancer; gene regulation; antisense technology; leukemia;
; KW   viral infection; inflammatory response; cellular proliferation;
; KW   psoriasis; duplex; ss.
; XX
; OS   Synthetic.
; XX
; PN   WO200011013-A1.
; XX
; PD   02-MAR-2000.
; XX
; PF   20-AUG-1999;   99WO-US19029.
; XX
; PR   22-AUG-1998;   98US-0097712.
; XX
; PA   (UYNE-) UNIV NEBRASKA.
; XX
; PI   Gold B;
; XX
; DR   WPI; 2000-246530/21.
; XX
; PT   Modified nucleomonomers, used in physiologically stable, non-toxic
; PT   oligomers used to inhibit expression of nucleic acids and in gene
; PT   regulation, antisense technology and diagnostics -
; XX
; PS   Disclosure; Page 20; 42pp; English.
; XX
; CC   The invention provides modified nucleomonomers of specified formula and
; CC   their pharmaceutically acceptable salts. The nucleomonomers are used as
; CC   monomers in oligomers, which are used in pharmaceutical compositions to
; CC   inhibit expression of nucleic acid molecules including DNA and RNA in
; CC   cells such as bacterial, fungal, yeast, mammalian, cancer and virally-
; CC   infected cells. They are used in oligomers for gene regulation,
; CC   antisense technology, diagnostic applications to detect target sequences
; CC   in biological samples such as those containing pathogenic bacteria,
; CC   fungi and viruses, oncogenes, growth hormones and enzymes, to target
; CC   genes or encoded RNAs that encode enzymes, hormones, serum proteins,
; CC   adhesion molecules, receptor molecules, cytokines, oncogenes, growth
; CC   factors and interleukins associated with pathological conditions such as
; CC   inflammatory conditions, cardiovascular disorders, immune reactions,
; CC   cancer, viral infections and bacterial infections (see AAA07786 for
; CC   details of other uses for which the oligomers are suitable for).
; CC   Oligomers comprising the nucleomonomers exhibit increased duplex DNA
; CC   stability when hybridizing to target nucleic acid sequences, are
; CC   physiologically stable, non-toxic and able to penetrate into cells while
; CC   maintaining stringent base pair fidelity for target DNA sequences. The
; CC   oligomers demonstrate significant single- or double-stranded target
; CC   nucleic acid binding activity to form duplexes, triplexes or other forms
; CC   of stable association. Sequences AAA07788-803 represent oligonucleotides
; CC   forming a third strand along with the duplex sequences.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 13 T; 2 U; 0 other;
;
;  AAA07797  Length: 15  October 16, 2003 08:46  Type: N  Check: 96  ..
aaa07797

  Query Match             0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   86.7%;  Pred. No. 0;
  Matches   13;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4501 TTTTTTTTTTTTTTT 4515
              :|:|||||||||||:
Db          1 UTTTTTTTTTTTTTU 15
```

```
RESULT 132
aaa07797/c
;  TOIG of: aaa07797  check: 96  from: 1  to: 15
;
; ID   AAA07797 standard; DNA; 15 BP.
; XX
; AC   AAA07797;
; XX
; DT   23-JUN-2000  (first entry)
; XX
; DE   Nucleic acid sequence of ODN-j.
; XX
; KW   Nucleomonomer; cancer; gene regulation; antisense technology; leukemia;
; KW   viral infection; inflammatory response; cellular proliferation;
; KW   psoriasis; duplex; ss.
; XX
; OS   Synthetic.
; XX
; PN   WO200011013-A1.
; XX
; PD   02-MAR-2000.
; XX
; PF   20-AUG-1999;   99WO-US19029.
; XX
; PR   22-AUG-1998;   98US-0097712.
; XX
; PA   (UYNE-) UNIV NEBRASKA.
; XX
; PI   Gold B;
; XX
; DR   WPI; 2000-246530/21.
; XX
; PT   Modified nucleomonomers, used in physiologically stable, non-toxic
; PT   oligomers used to inhibit expression of nucleic acids and in gene
; PT   regulation, antisense technology and diagnostics
; XX
; PS   Disclosure; Page 20; 42pp; English.
; XX
; CC   The invention provides modified nucleomonomers of specified formula and
; CC   their pharmaceutically acceptable salts. The nucleomonomers are used as
; CC   monomers in oligomers, which are used in pharmaceutical compositions to
; CC   inhibit expression of nucleic acid molecules including DNA and RNA in
; CC   cells such as bacterial, fungal, yeast, mammalian, cancer and virally-
; CC   infected cells. They are used in oligomers for gene regulation,
; CC   antisense technology, diagnostic applications to detect target sequences
; CC   in biological samples such as those containing pathogenic bacteria,
; CC   fungi and viruses, oncogenes, growth hormones and enzymes, to target
; CC   genes or encoded RNAs that encode enzymes, hormones, serum proteins,
; CC   adhesion molecules, receptor molecules, cytokines, oncogenes, growth
; CC   factors and interleukins associated with pathological conditions such as
; CC   inflammatory conditions, cardiovascular disorders, immune reactions,
; CC   cancer, viral infections and bacterial infections (see AAA07786 for
; CC   details of other uses for which the oligomers are suitable for).
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; CC   stability when hybridizing to target nucleic acid sequences, are
; CC   physiologically stable, non-toxic and able to penetrate into cells while
; CC   maintaining stringent base pair fidelity for target DNA sequences. The
; CC   oligomers demonstrate significant single- or double-stranded target
; CC   nucleic acid binding activity to form duplexes, triplexes or other forms
; CC   of stable association. Sequences AAA07788-803 represent oligonucleotides
; CC   forming a third strand along with the duplex sequences.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 13 T; 2 U; 0 other;
;
;   AAA07797  Length: 15  October 16, 2003 08:46  Type: N  Check: 96  ..
aaa07797

  Query Match             0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5207 AAAAAAAAAAAAAAA 5221
             |||||||||||||||

Db         15 AAAAAAAAAAAAAAA 1


RESULT 133
aaa07798
;  TOIG of: aaa07798  check: 200  from: 1  to: 15
;
; ID   AAA07798 standard; DNA; 15 BP.
; XX
; AC   AAA07798;
; XX
; DT   23-JUN-2000  (first entry)
; XX
; DE   Nucleic acid sequence of ODN-k.
; XX
; KW   Nucleomonomer; cancer; gene regulation; antisense technology; leukemia;
; KW   viral infection; inflammatory response; cellular proliferation;
; KW   psoriasis; duplex; ss.
; XX
; OS   Synthetic.
; XX
; PN   WO200011013-A1.
; XX
; PD   02-MAR-2000.
; XX
; PF   20-AUG-1999;   99WO-US19029.
; XX
; PR   22-AUG-1998;   98US-0097712.
; XX
; PA   (UYNE-) UNIV NEBRASKA.
; XX
; PI   Gold B;
; XX
; DR   WPI; 2000-246530/21.
; XX
; PT   Modified nucleomonomers, used in physiologically stable, non-toxic
; PT   oligomers used to inhibit expression of nucleic acids and in gene
; PT   regulation, antisense technology and diagnostics
; XX
; PS   Disclosure; Page 20; 42pp; English.
; XX
; CC   The invention provides modified nucleomonomers of specified formula and
; CC   their pharmaceutically acceptable salts. The nucleomonomers are used as
; CC   monomers in oligomers, which are used in pharmaceutical compositions to
; CC   inhibit expression of nucleic acid molecules including DNA and RNA in
; CC   cells such as bacterial, fungal, yeast, mammalian, cancer and virally-
; CC   infected cells. They are used in oligomers for gene regulation,
; CC   antisense technology, diagnostic applications to detect target sequences
; CC   in biological samples such as those containing pathogenic bacteria,
; CC   fungi and viruses, oncogenes, growth hormones and enzymes, to target
; CC   genes or encoded RNAs that encode enzymes, hormones, serum proteins,
; CC   adhesion molecules, receptor molecules, cytokines, oncogenes, growth
; CC   factors and interleukins associated with pathological conditions such as
; CC   inflammatory conditions, cardiovascular disorders, immune reactions,
; CC   cancer, viral infections and bacterial infections (see AAA07786 for
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; CC   maintaining stringent base pair fidelity for target DNA sequences. The
; CC   oligomers demonstrate significant single- or double-stranded target
; CC   nucleic acid binding activity to form duplexes, triplexes or other forms
; CC   of stable association. Sequences AAA07788-803 represent oligonucleotides
; CC   forming a third strand along with the duplex sequences.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 15 U; 0 other;
;
;  AAA07798  Length: 15  October 16, 2003 08:46  Type: N  Check: 200  ..
aaa07798

  Query Match             0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   0.0%;  Pred. No. 0;
  Matches    0;  Conservative   15;  Mismatches    0;  Indels    0;  Gaps    0;
```

```
Qy       4501 TTTTTTTTTTTTTTT 4515
              ::::::::::::::::
Db          1 UUUUUUUUUUUUUUU 15


RESULT 134
aaa07798/c
;  TOIG of: aaa07798  check: 200  from: 1  to: 15
;
; ID   AAA07798 standard; DNA; 15 BP.
; XX
; AC   AAA07798;
; XX
; DT   23-JUN-2000  (first entry)
; XX
; DE   Nucleic acid sequence of ODN-k.
; XX
; KW   Nucleomonomer; cancer; gene regulation; antisense technology; leukemia;
; KW   viral infection; inflammatory response; cellular proliferation;
; KW   psoriasis; duplex; ss.
; XX
; OS   Synthetic.
; XX
; PN   WO200011013-A1.
; XX
; PD   02-MAR-2000.
; XX
; PF   20-AUG-1999;   99WO-US19029.
; XX
; PR   22-AUG-1998;   98US-0097712.
; XX
; PA   (UYNE-) UNIV NEBRASKA.
; XX
; PI   Gold B;
; XX
; DR   WPI; 2000-246530/21.
; XX
; PT   Modified nucleomonomers, used in physiologically stable, non-toxic
; PT   oligomers used to inhibit expression of nucleic acids and in gene
; PT   regulation, antisense technology and diagnostics -
; XX
; PS   Disclosure; Page 20; 42pp; English.
; XX
; CC   The invention provides modified nucleomonomers of specified formula and
; CC   their pharmaceutically acceptable salts. The nucleomonomers are used as
; CC   monomers in oligomers, which are used in pharmaceutical compositions to
; CC   inhibit expression of nucleic acid molecules including DNA and RNA in
; CC   cells such as bacterial, fungal, yeast, mammalian, cancer and virally-
; CC   infected cells. They are used in oligomers for gene regulation,
; CC   antisense technology, diagnostic applications to detect target sequences
; CC   in biological samples such as those containing pathogenic bacteria,
; CC   fungi and viruses, oncogenes, growth hormones and enzymes, to target
; CC   genes or encoded RNAs that encode enzymes, hormones, serum proteins,
; CC   adhesion molecules, receptor molecules, cytokines, oncogenes, growth
; CC   factors and interleukins associated with pathological conditions such as
; CC   inflammatory conditions, cardiovascular disorders, immune reactions,
; CC   cancer, viral infections and bacterial infections (see AAA07786 for
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; CC   physiologically stable, non-toxic and able to penetrate into cells while
; CC   maintaining stringent base pair fidelity for target DNA sequences. The
; CC   oligomers demonstrate significant single- or double-stranded target
; CC   nucleic acid binding activity to form duplexes, triplexes or other forms
; CC   of stable association. Sequences AAA07788-803 represent oligonucleotides
; CC   forming a third strand along with the duplex sequences.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 15 U; 0 other;
;
;  AAA07798  Length: 15  October 16, 2003 08:46  Type: N  Check: 200  ..
aaa07798

  Query Match              0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5207 AAAAAAAAAAAAAAA 5221
              |||||||||||||||
Db         15 AAAAAAAAAAAAAAA 1


RESULT 135
aaa07799
;  TOIG of: aaa07799  check: 88  from: 1  to: 15
;
; ID   AAA07799 standard; DNA; 15 BP.
; XX
; AC   AAA07799;
; XX
; DT   23-JUN-2000  (first entry)
; XX
; DE   Nucleic acid sequence of ODN-l.
; XX
; KW   Nucleomonomer; cancer; gene regulation; antisense technology; leukemia;
; KW   viral infection; inflammatory response; cellular proliferation;
; KW   psoriasis; duplex; ss.
; XX
; OS   Synthetic.
; XX
; PN   WO200011013-A1.
; XX
; PD   02-MAR-2000.
; XX
; PF   20-AUG-1999;   99WO-US19029.
; XX
; PR   22-AUG-1998;   98US-0097712.
; XX
; PA   (UYNE-) UNIV NEBRASKA.
; XX
; PI   Gold B;
; XX
; DR   WPI; 2000-246530/21.
; XX
; PT   Modified nucleomonomers, used in physiologically stable, non-toxic
; PT   oligomers used to inhibit expression of nucleic acids and in gene
; PT   regulation, antisense technology and diagnostics -
; XX
; PS   Disclosure; Page 20; 42pp; English.
; XX
; CC   The invention provides modified nucleomonomers of specified formula and
; CC   their pharmaceutically acceptable salts. The nucleomonomers are used as
; CC   monomers in oligomers, which are used in pharmaceutical compositions to
; CC   inhibit expression of nucleic acid molecules including DNA and RNA in
; CC   cells such as bacterial, fungal, yeast, mammalian, cancer and virally-
; CC   infected cells. They are used in oligomers for gene regulation,
; CC   antisense technology, diagnostic applications to detect target sequences
; CC   in biological samples such as those containing pathogenic bacteria,
; CC   fungi and viruses, oncogenes, growth hormones and enzymes, to target
; CC   genes or encoded RNAs that encode enzymes, hormones, serum proteins,
; CC   adhesion molecules, receptor molecules, cytokines, oncogenes, growth
; CC   factors and interleukins associated with pathological conditions such as
; CC   inflammatory conditions, cardiovascular disorders, immune reactions,
; CC   cancer, viral infections and bacterial infections (see AAA07786 for
; CC   details of other uses for which the oligomers are suitable for).
; CC   Oligomers comprising the nucleomonomers exhibit increased duplex DNA
; CC   stability when hybridizing to target nucleic acid sequences, are
; CC   physiologically stable, non-toxic and able to penetrate into cells while
; CC   maintaining stringent base pair fidelity for target DNA sequences. The
; CC   oligomers demonstrate significant single- or double-stranded target
; CC   nucleic acid binding activity to form duplexes, triplexes or other forms
; CC   of stable association. Sequences AAA07788-803 represent oligonucleotides
; CC   forming a third strand along with the duplex sequences.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 14 T; 1 U; 0 other;
;
```

```
;   AAA07799  Length: 15  October 16, 2003 08:46  Type: N  Check: 88  ..
aaa07799

  Query Match              0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   93.3%;  Pred. No. 0;
  Matches   14;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4501 TTTTTTTTTTTTTTT 4515
              ||||||| |||||||
Db          1 TTTTTTTUTTTTTTT 15


RESULT 136
aaa07799/c
;  TOIG of: aaa07799  check: 88  from: 1  to: 15
;
; ID   AAA07799 standard; DNA; 15 BP.
; XX
; AC   AAA07799;
; XX
; DT   23-JUN-2000  (first entry)
; XX
; DE   Nucleic acid sequence of ODN-1.
; XX
; KW   Nucleomonomer; cancer; gene regulation; antisense technology; leukemia;
; KW   viral infection; inflammatory response; cellular proliferation;
; KW   psoriasis; duplex; ss.
; XX
; OS   Synthetic.
; XX
; PN   WO200011013-A1.
; XX
; PD   02-MAR-2000.
; XX
; PF   20-AUG-1999;   99WO-US19029.
; XX
; PR   22-AUG-1998;   98US-0097712.
; XX
; PA   (UYNE-) UNIV NEBRASKA.
; XX
; PI   Gold B;
; XX
; DR   WPI; 2000-246530/21.
; XX
; PT   Modified nucleomonomers, used in physiologically stable, non-toxic
; PT   oligomers used to inhibit expression of nucleic acids and in gene
; PT   regulation, antisense technology and diagnostics -
; XX
; PS   Disclosure; Page 20; 42pp; English.
; XX
; CC   The invention provides modified nucleomonomers of specified formula and
; CC   their pharmaceutically acceptable salts. The nucleomonomers are used as
; CC   monomers in oligomers, which are used in pharmaceutical compositions to
; CC   inhibit expression of nucleic acid molecules including DNA and RNA in
; CC   cells such as bacterial, fungal, yeast, mammalian, cancer and virally-
; CC   infected cells. They are used in oligomers for gene regulation,
; CC   antisense technology, diagnostic applications to detect target sequences
; CC   in biological samples such as those containing pathogenic bacteria,
; CC   fungi and viruses, oncogenes, growth hormones and enzymes, to target
; CC   genes or encoded RNAs that encode enzymes, hormones, serum proteins,
; CC   adhesion molecules, receptor molecules, cytokines, oncogenes, growth
; CC   factors and interleukins associated with pathological conditions such as
; CC   inflammatory conditions, cardiovascular disorders, immune reactions,
; CC   cancer, viral infections and bacterial infections (see AAA07786 for
; CC   details of other uses for which the oligomers are suitable for).
; CC   Oligomers comprising the nucleomonomers exhibit increased duplex DNA
; CC   stability when hybridizing to target nucleic acid sequences, are
; CC   physiologically stable, non-toxic and able to penetrate into cells while
; CC   maintaining stringent base pair fidelity for target DNA sequences. The
; CC   oligomers demonstrate significant single- or double-stranded target
; CC   nucleic acid binding activity to form duplexes, triplexes or other forms
; CC   of stable association. Sequences AAA07788-803 represent oligonucleotides
; CC   forming a third strand along with the duplex sequences.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 14 T; 1 U; 0 other;
;
;   AAA07799  Length: 15  October 16, 2003 08:46  Type: N  Check: 88  ..
aaa07799

  Query Match              0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity  100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5207 AAAAAAAAAAAAAAA 5221
              |||||||||||||||
Db         15 AAAAAAAAAAAAAAA 1


RESULT 137
aaa07800
;  TOIG of: aaa07800  check: 96  from: 1  to: 15
;
; ID   AAA07800 standard; DNA; 15 BP.
; XX
; AC   AAA07800;
; XX
; DT   23-JUN-2000  (first entry)
; XX
; DE   Nucleic acid sequence of ODN-m.
; XX
; KW   Nucleomonomer; cancer; gene regulation; antisense technology; leukemia;
; KW   viral infection; inflammatory response; cellular proliferation;
; KW   psoriasis; duplex; ss.
; XX
; OS   Synthetic.
; XX
; PN   WO200011013-A1.
; XX
; PD   02-MAR-2000.
; XX
; PF   20-AUG-1999;   99WO-US19029.
; XX
; PR   22-AUG-1998;   98US-0097712.
; XX
; PA   (UYNE-) UNIV NEBRASKA.
; XX
; PI   Gold B;
; XX
; DR   WPI; 2000-246530/21.
; XX
; PT   Modified nucleomonomers, used in physiologically stable, non-toxic
; PT   oligomers used to inhibit expression of nucleic acids and in gene
; PT   regulation, antisense technology and diagnostics -
; XX
; PS   Disclosure; Page 20; 42pp; English.
; XX
; CC   The invention provides modified nucleomonomers of specified formula and
; CC   their pharmaceutically acceptable salts. The nucleomonomers are used as
; CC   monomers in oligomers, which are used in pharmaceutical compositions to
; CC   inhibit expression of nucleic acid molecules including DNA and RNA in
; CC   cells such as bacterial, fungal, yeast, mammalian, cancer and virally-
; CC   infected cells. They are used in oligomers for gene regulation,
; CC   antisense technology, diagnostic applications to detect target sequences
; CC   in biological samples such as those containing pathogenic bacteria,
; CC   fungi and viruses, oncogenes, growth hormones and enzymes, to target
; CC   genes or encoded RNAs that encode enzymes, hormones, serum proteins,
; CC   adhesion molecules, receptor molecules, cytokines, oncogenes, growth
; CC   factors and interleukins associated with pathological conditions such as
; CC   inflammatory conditions, cardiovascular disorders, immune reactions,
; CC   cancer, viral infections and bacterial infections (see AAA07786 for
; CC   details of other uses for which the oligomers are suitable for).
; CC   Oligomers comprising the nucleomonomers exhibit increased duplex DNA
; CC   stability when hybridizing to target nucleic acid sequences, are
; CC   physiologically stable, non-toxic and able to penetrate into cells while
; CC   maintaining stringent base pair fidelity for target DNA sequences. The
; CC   oligomers demonstrate significant single- or double-stranded target
```

; CC nucleic acid binding activity to form duplexes, triplexes or other forms
; CC of stable association. Sequences AAA07788-803 represent oligonucleotides
; CC forming a third strand along with the duplex sequences.
; XX
; SQ Sequence 15 BP; 0 A; 0 C; 0 G; 13 T; 2 U; 0 other;
;
; AAA07800 Length: 15 October 16, 2003 08:46 Type: N Check: 96 ..
aaa07800

Query Match 0.3%; Score 15; DB 1; Length 15;
Best Local Similarity 86.7%; Pred. No. 0;
Matches 13; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Qy 4501 TTTTTTTTTTTTTTT 4515
||||||:|||:|||||
Db 1 TTTTTUTTTUTTTTT 15

RESULT 138
aaa07800/c
; TOIG of: aaa07800 check: 96 from: 1 to: 15
;
; ID AAA07800 standard; DNA; 15 BP.
; XX
; AC AAA07800;
; XX
; DT 23-JUN-2000 (first entry)
; XX
; DE Nucleic acid sequence of ODN-m.
; XX
; KW Nucleomonomer; cancer; gene regulation; antisense technology; leukemia;
; KW viral infection; inflammatory response; cellular proliferation;
; KW psoriasis; duplex; ss.
; XX
; OS Synthetic.
; XX
; PN WO200011013-A1.
; XX
; PD 02-MAR-2000.
; XX
; PF 20-AUG-1999; 99WO-US19029.
; XX
; PR 22-AUG-1998; 98US-0097712.
; XX
; PA (UYNE-) UNIV NEBRASKA.
; XX
; PI Gold B;
; XX
; DR WPI; 2000-246530/21.
; XX
; PT Modified nucleomonomers, used in physiologically stable, non-toxic
; PT oligomers used to inhibit expression of nucleic acids and in gene
; PT regulation, antisense technology and diagnostics
; XX
; PS Disclosure; Page 20; 42pp; English.
; XX
; CC The invention provides modified nucleomonomers of specified formula and
; CC their pharmaceutically acceptable salts. The nucleomonomers are used as
; CC monomers in oligomers, which are used in pharmaceutical compositions to
; CC inhibit expression of nucleic acid molecules including DNA and RNA in
; CC cells such as bacterial, fungal, yeast, mammalian, cancer and virally-
; CC infected cells. They are used in oligomers for gene regulation,
; CC antisense technology, diagnostic applications to detect target sequences
; CC in biological samples such as those containing pathogenic bacteria,
; CC fungi and viruses, oncogenes, growth hormones and enzymes, to target
; CC genes or encoded RNAs that encode enzymes, hormones, serum proteins,
; CC adhesion molecules, receptor molecules, cytokines, oncogenes, growth
; CC factors and interleukins associated with pathological conditions such as
; CC inflammatory conditions, cardiovascular disorders, immune reactions,
; CC cancer, viral infections and bacterial infections (see AAA07786 for
; CC details of other uses for which the oligomers are suitable for).
; CC Oligomers comprising the nucleomonomers exhibit increased duplex DNA
; CC stability when hybridizing to target nucleic acid sequences, are
; CC physiologically stable, non-toxic and able to penetrate into cells while
; CC maintaining stringent base pair fidelity for target DNA sequences. The
; CC oligomers demonstrate significant single- or double-stranded target
; CC nucleic acid binding activity to form duplexes, triplexes or other forms
; CC of stable association. Sequences AAA07788-803 represent oligonucleotides
; CC forming a third strand along with the duplex sequences.
; XX
; SQ Sequence 15 BP; 0 A; 0 C; 0 G; 13 T; 2 U; 0 other;
;
; AAA07800 Length: 15 October 16, 2003 08:46 Type: N Check: 96 ..
aaa07800

Query Match 0.3%; Score 15; DB 1; Length 15;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 15; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 5207 AAAAAAAAAAAAAAA 5221
|||||||||||||||
Db 15 AAAAAAAAAAAAAAA 1

RESULT 139
aaa07801
; TOIG of: aaa07801 check: 112 from: 1 to: 15
;
; ID AAA07801 standard; DNA; 15 BP.
; XX
; AC AAA07801;
; XX
; DT 23-JUN-2000 (first entry)
; XX
; DE Nucleic acid sequence of ODN-n.
; XX
; KW Nucleomonomer; cancer; gene regulation; antisense technology; leukemia;
; KW viral infection; inflammatory response; cellular proliferation;
; KW psoriasis; duplex; ss.
; XX
; OS Synthetic.
; XX
; PN WO200011013-A1.
; XX
; PD 02-MAR-2000.
; XX
; PF 20-AUG-1999; 99WO-US19029.
; XX
; PR 22-AUG-1998; 98US-0097712.
; XX
; PA (UYNE-) UNIV NEBRASKA.
; XX
; PI Gold B;
; XX
; DR WPI; 2000-246530/21.
; XX
; PT Modified nucleomonomers, used in physiologically stable, non-toxic
; PT oligomers used to inhibit expression of nucleic acids and in gene
; PT regulation, antisense technology and diagnostics
; XX
; PS Disclosure; Page 20; 42pp; English.
; XX
; CC The invention provides modified nucleomonomers of specified formula and
; CC their pharmaceutically acceptable salts. The nucleomonomers are used as
; CC monomers in oligomers, which are used in pharmaceutical compositions to
; CC inhibit expression of nucleic acid molecules including DNA and RNA in
; CC cells such as bacterial, fungal, yeast, mammalian, cancer and virally-
; CC infected cells. They are used in oligomers for gene regulation,
; CC antisense technology, diagnostic applications to detect target sequences
; CC in biological samples such as those containing pathogenic bacteria,
; CC fungi and viruses, oncogenes, growth hormones and enzymes, to target
; CC genes or encoded RNAs that encode enzymes, hormones, serum proteins,
; CC adhesion molecules, receptor molecules, cytokines, oncogenes, growth
; CC factors and interleukins associated with pathological conditions such as
; CC inflammatory conditions, cardiovascular disorders, immune reactions,
; CC cancer, viral infections and bacterial infections (see AAA07786 for

```
; CC   details of other uses for which the oligomers are suitable for).
; CC   Oligomers comprising the nucleomonomers exhibit increased duplex DNA
; CC   stability when hybridizing to target nucleic acid sequences, are
; CC   physiologically stable, non-toxic and able to penetrate into cells while
; CC   maintaining stringent base pair fidelity for target DNA sequences. The
; CC   oligomers demonstrate significant single- or double-stranded target
; CC   nucleic acid binding activity to form duplexes, triplexes or other forms
; CC   of stable association. Sequences AAA07788-803 represent oligonucleotides
; CC   forming a third strand along with the duplex sequences.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 11 T; 4 U; 0 other;
;
;  AAA07801  Length: 15  October 16, 2003 08:46  Type: N  Check: 112  ..
aaa07801

  Query Match             0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   73.3%;  Pred. No. 0;
  Matches   11;  Conservative    4;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4501 TTTTTTTTTTTTTTT 4515
              :|||||:|||:|||||:
Db          1 UTTTTUTTTUTTTTU 15


RESULT 140
aaa07801/c
;  TOIG of: aaa07801  check: 112  from: 1  to: 15
;
; ID   AAA07801 standard; DNA; 15 BP.
; XX
; AC   AAA07801;
; XX
; DT   23-JUN-2000  (first entry)
; XX
; DE   Nucleic acid sequence of ODN-n.
; XX
; KW   Nucleomonomer; cancer; gene regulation; antisense technology; leukemia;
; KW   viral infection; inflammatory response; cellular proliferation;
; KW   psoriasis; duplex; ss.
; XX
; OS   Synthetic.
; XX
; PN   WO200011013-A1.
; XX
; PD   02-MAR-2000.
; XX
; PF   20-AUG-1999;   99WO-US19029.
; XX
; PR   22-AUG-1998;   98US-0097712.
; XX
; PA   (UYNE-) UNIV NEBRASKA.
; XX
; PI   Gold B;
; XX
; DR   WPI; 2000-246530/21.
; XX
; PT   Modified nucleomonomers, used in physiologically stable, non-toxic
; PT   oligomers used to inhibit expression of nucleic acids and in gene
; PT   regulation, antisense technology and diagnostics
; XX
; PS   Disclosure; Page 20; 42pp; English.
; XX
; CC   The invention provides modified nucleomonomers of specified formula and
; CC   their pharmaceutically acceptable salts. The nucleomonomers are used as
; CC   monomers in oligomers, which are used in pharmaceutical compositions to
; CC   inhibit expression of nucleic acid molecules including DNA and RNA in
; CC   cells such as bacterial, fungal, yeast, mammalian, cancer and virally-
; CC   infected cells. They are used in oligomers for gene regulation,
; CC   antisense technology, diagnostic applications to detect target sequences
; CC   in biological samples such as those containing pathogenic bacteria,
; CC   fungi and viruses, oncogenes, growth hormones and enzymes, to target
; CC   genes or encoded RNAs that encode enzymes, hormones, serum proteins,
; CC   adhesion molecules, receptor molecules, cytokines, oncogenes, growth
; CC   factors and interleukins associated with pathological conditions such as
; CC   inflammatory conditions, cardiovascular disorders, immune reactions,
; CC   cancer, viral infections and bacterial infections (see AAA07786 for
; CC   details of other uses for which the oligomers are suitable for).
; CC   Oligomers comprising the nucleomonomers exhibit increased duplex DNA
; CC   stability when hybridizing to target nucleic acid sequences, are
; CC   physiologically stable, non-toxic and able to penetrate into cells while
; CC   maintaining stringent base pair fidelity for target DNA sequences. The
; CC   oligomers demonstrate significant single- or double-stranded target
; CC   nucleic acid binding activity to form duplexes, triplexes or other forms
; CC   of stable association. Sequences AAA07788-803 represent oligonucleotides
; CC   forming a third strand along with the duplex sequences.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 11 T; 4 U; 0 other;
;
;  AAA07801  Length: 15  October 16, 2003 08:46  Type: N  Check: 112  ..
aaa07801

  Query Match             0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5207 AAAAAAAAAAAAAAA 5221
              ||||||||||||||:
Db         15 AAAAAAAAAAAAAAA 1


RESULT 141
aaa07802
;  TOIG of: aaa07802  check: 96  from: 1  to: 15
;
; ID   AAA07802 standard; DNA; 15 BP.
; XX
; AC   AAA07802;
; XX
; DT   23-JUN-2000  (first entry)
; XX
; DE   Nucleic acid sequence of ODN-o.
; XX
; KW   Nucleomonomer; cancer; gene regulation; antisense technology; leukemia;
; KW   viral infection; inflammatory response; cellular proliferation;
; KW   psoriasis; duplex; ss.
; XX
; OS   Synthetic.
; XX
; PN   WO200011013-A1.
; XX
; PD   02-MAR-2000.
; XX
; PF   20-AUG-1999;   99WO-US19029.
; XX
; PR   22-AUG-1998;   98US-0097712.
; XX
; PA   (UYNE-) UNIV NEBRASKA.
; XX
; PI   Gold B;
; XX
; DR   WPI; 2000-246530/21.
; XX
; PT   Modified nucleomonomers, used in physiologically stable, non-toxic
; PT   oligomers used to inhibit expression of nucleic acids and in gene
; PT   regulation, antisense technology and diagnostics
; XX
; PS   Disclosure; Page 20; 42pp; English.
; XX
; CC   The invention provides modified nucleomonomers of specified formula and
; CC   their pharmaceutically acceptable salts. The nucleomonomers are used as
; CC   monomers in oligomers, which are used in pharmaceutical compositions to
; CC   inhibit expression of nucleic acid molecules including DNA and RNA in
; CC   cells such as bacterial, fungal, yeast, mammalian, cancer and virally-
; CC   infected cells. They are used in oligomers for gene regulation,
; CC   antisense technology, diagnostic applications to detect target sequences
; CC   in biological samples such as those containing pathogenic bacteria,
```

; CC fungi and viruses, oncogenes, growth hormones and enzymes, to target
; CC genes or encoded RNAs that encode enzymes, hormones, serum proteins,
; CC adhesion molecules, receptor molecules, cytokines, oncogenes, growth
; CC factors and interleukins associated with pathological conditions such as
; CC inflammatory conditions, cardiovascular disorders, immune reactions,
; CC cancer, viral infections and bacterial infections (see AAA07786 for
; CC details of other uses for which the oligomers are suitable for).
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; CC stability when hybridizing to target nucleic acid sequences, are
; CC physiologically stable, non-toxic and able to penetrate into cells while
; CC maintaining stringent base pair fidelity for target DNA sequences. The
; CC oligomers demonstrate significant single- or double-stranded target
; CC nucleic acid binding activity to form duplexes, triplexes or other forms
; CC of stable association. Sequences AAA07788-803 represent oligonucleotides
; CC forming a third strand along with the duplex sequences.
; XX
; SQ Sequence 15 BP; 0 A; 0 C; 0 G; 13 T; 2 U; 0 other;
;
; AAA07802 Length: 15 October 16, 2003 08:46 Type: N Check: 96 ..
aaa07802

Query Match 0.3%; Score 15; DB 1; Length 15;
Best Local Similarity 86.7%; Pred. No. 0;
Matches 13; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Qy 4501 TTTTTTTTTTTTTTT 4515
:|||||||||||||:
Db 1 UTTTTTTTTTTTTTU 15

RESULT 142
aaa07802/c
; TOIG of: aaa07802 check: 96 from: 1 to: 15
;
; ID AAA07802 standard; DNA; 15 BP.
; XX
; AC AAA07802;
; XX
; DT 23-JUN-2000 (first entry)
; XX
; DE Nucleic acid sequence of ODN-0.
; XX
; KW Nucleomonomer; cancer; gene regulation; antisense technology; leukemia;
; KW viral infection; inflammatory response; cellular proliferation;
; KW psoriasis; duplex; ss.
; XX
; OS Synthetic.
; XX
; PN WO200011013-A1.
; XX
; PD 02-MAR-2000.
; XX
; PF 20-AUG-1999; 99WO-US19029.
; XX
; PR 22-AUG-1998; 98US-0097712.
; XX
; PA (UYNE-) UNIV NEBRASKA.
; XX
; PI Gold B;
; XX
; DR WPI; 2000-246530/21.
; XX
; PT Modified nucleomonomers, used in physiologically stable, non-toxic
; PT oligomers used to inhibit expression of nucleic acids and in gene
; PT regulation, antisense technology and diagnostics -
; XX
; PS Disclosure; Page 20; 42pp; English.
; XX
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; CC their pharmaceutically acceptable salts. The nucleomonomers are used as
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; CC cells such as bacterial, fungal, yeast, mammalian, cancer and virally-
; CC infected cells. They are used in oligomers for gene regulation,
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; CC nucleic acid binding activity to form duplexes, triplexes or other forms
; CC of stable association. Sequences AAA07788-803 represent oligonucleotides
; CC forming a third strand along with the duplex sequences.
; XX
; SQ Sequence 15 BP; 0 A; 0 C; 0 G; 13 T; 2 U; 0 other;
;
; AAA07802 Length: 15 October 16, 2003 08:46 Type: N Check: 96 ..
aaa07802

Query Match 0.3%; Score 15; DB 1; Length 15;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 15; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 5207 AAAAAAAAAAAAAAA 5221
|||||||||||||||
Db 15 AAAAAAAAAAAAAAA 1

RESULT 143
aaa07803
; TOIG of: aaa07803 check: 200 from: 1 to: 15
;
; ID AAA07803 standard; DNA; 15 BP.
; XX
; AC AAA07803;
; XX
; DT 23-JUN-2000 (first entry)
; XX
; DE Nucleic acid sequence of ODN-p.
; XX
; KW Nucleomonomer; cancer; gene regulation; antisense technology; leukemia;
; KW viral infection; inflammatory response; cellular proliferation;
; KW psoriasis; duplex; ss.
; XX
; OS Synthetic.
; XX
; PN WO200011013-A1.
; XX
; PD 02-MAR-2000.
; XX
; PF 20-AUG-1999; 99WO-US19029.
; XX
; PR 22-AUG-1998; 98US-0097712.
; XX
; PA (UYNE-) UNIV NEBRASKA.
; XX
; PI Gold B;
; XX
; DR WPI; 2000-246530/21.
; XX
; PT Modified nucleomonomers, used in physiologically stable, non-toxic
; PT oligomers used to inhibit expression of nucleic acids and in gene
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; CC nucleic acid binding activity to form duplexes, triplexes or other forms
; CC of stable association. Sequences AAA07788-803 represent oligonucleotides
; CC forming a third strand along with the duplex sequences.
; XX
; SQ Sequence 15 BP; 0 A; 0 C; 0 G; 15 U; 0 other;
;
; AAA07803 Length: 15 October 16, 2003 08:46 Type: N Check: 200 ..
aaa07803

Query Match 0.3%; Score 15; DB 1; Length 15;
Best Local Similarity 0.0%; Pred. No. 0;
Matches 0; Conservative 15; Mismatches 0; Indels 0; Gaps 0;

Qy 4501 TTTTTTTTTTTTTTT 4515
:::::::::::::::
Db 1 UUUUUUUUUUUUUUU 15

RESULT 144
aaa07803/c
; TOIG of: aaa07803 check: 200 from: 1 to: 15
;
; ID AAA07803 standard; DNA; 15 BP.
; XX
; AC AAA07803;
; XX
; DT 23-JUN-2000 (first entry)
; XX
; DE Nucleic acid sequence of ODN-p.
; XX
; KW Nucleomonomer; cancer; gene regulation; antisense technology; leukemia;
; KW viral infection; inflammatory response; cellular proliferation;
; KW psoriasis; duplex; ss.
; XX
; OS Synthetic.
; XX
; PN WO200011013-A1.
; XX
; PD 02-MAR-2000.
; XX
; PF 20-AUG-1999; 99WO-US19029.
; XX
; PR 22-AUG-1998; 98US-0097712.
; XX
; PA (UYNE-) UNIV NEBRASKA.
; XX
; PI Gold B;
; XX
; DR WPI; 2000-246530/21.
; XX
; PT Modified nucleomonomers, used in physiologically stable, non-toxic
; PT oligomers used to inhibit expression of nucleic acids and in gene
; PT regulation, antisense technology and diagnostics
; XX
; PS Disclosure; Page 20; 42pp; English.

; XX
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; CC infected cells. They are used in oligomers for gene regulation,
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; CC adhesion molecules, receptor molecules, cytokines, oncogenes, growth
; CC factors and interleukins associated with pathological conditions such as
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; CC Oligomers comprising the nucleomonomers exhibit increased duplex DNA
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; CC physiologically stable, non-toxic and able to penetrate into cells while
; CC maintaining stringent base pair fidelity for target DNA sequences. The
; CC oligomers demonstrate significant single- or double-stranded target
; CC nucleic acid binding activity to form duplexes, triplexes or other forms
; CC of stable association. Sequences AAA07788-803 represent oligonucleotides
; CC forming a third strand along with the duplex sequences.
; XX
; SQ Sequence 15 BP; 0 A; 0 C; 0 G; 15 U; 0 other;
;
; AAA07803 Length: 15 October 16, 2003 08:46 Type: N Check: 200 ..
aaa07803

Query Match 0.3%; Score 15; DB 1; Length 15;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 15; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 5207 AAAAAAAAAAAAAAA 5221
|||||||||||||||
Db 15 AAAAAAAAAAAAAAA 1

RESULT 145
aaa07825
; TOIG of: aaa07825 check: 88 from: 1 to: 15
;
; ID AAA07825 standard; DNA; 15 BP.
; XX
; AC AAA07825;
; XX
; DT 23-JUN-2000 (first entry)
; XX
; DE Nucleic acid sequence of a strand of triplex oligomer 14.
; XX
; KW Nucleomonomer; cancer; gene regulation; antisense technology; leukemia;
; KW viral infection; inflammatory response; cellular proliferation;
; KW psoriasis; duplex; triplex; ss.
; XX
; OS Synthetic.
; XX
; PN WO200011013-A1.
; XX
; PD 02-MAR-2000.
; XX
; PF 20-AUG-1999; 99WO-US19029.
; XX
; PR 22-AUG-1998; 98US-0097712.
; XX
; PA (UYNE-) UNIV NEBRASKA.
; XX
; PI Gold B;
; XX
; DR WPI; 2000-246530/21.
; XX
; PT Modified nucleomonomers, used in physiologically stable, non-toxic
; PT oligomers used to inhibit expression of nucleic acids and in gene

; PT regulation, antisense technology and diagnostics -
; XX
; PS Disclosure; Page 30; 42pp; English.
; XX
; CC The invention provides modified nucleomonomers of specified formula and
; CC their pharmaceutically acceptable salts. The nucleomonomers are used as
; CC monomers in oligomers, which are used in pharmaceutical compositions to
; CC inhibit expression of nucleic acid molecules including DNA and RNA in
; CC cells such as bacterial, fungal, yeast, mammalian, cancer and virally-
; CC infected cells. They are used in oligomers for gene regulation,
; CC antisense technology, diagnostic applications to detect target sequences
; CC in biological samples such as those containing pathogenic bacteria,
; CC fungi and viruses, oncogenes, growth hormones and enzymes, to target
; CC genes or encoded RNAs that encode enzymes, hormones, serum proteins,
; CC adhesion molecules, receptor molecules, cytokines, oncogenes, growth
; CC factors and interleukins associated with pathological conditions such as
; CC inflammatory conditions, cardiovascular disorders, immune reactions,
; CC cancer, viral infections and bacterial infections (see AAA07786 for
; CC details of other uses for which the oligomers are suitable for).
; CC Oligomers comprising the nucleomonomers exhibit increased duplex DNA
; CC stability when hybridizing to target nucleic acid sequences, are
; CC physiologically stable, non-toxic and able to penetrate into cells while
; CC maintaining stringent base pair fidelity for target DNA sequences. The
; CC oligomers demonstrate significant single- or double-stranded target
; CC nucleic acid binding activity to form duplexes, triplexes or other forms
; CC of stable association. Sequences AAA07820-834 represent sequences forming
; CC triplex oligomers.
; XX
; SQ Sequence 15 BP; 0 A; 0 C; 0 G; 14 T; 1 U; 0 other;
;
; AAA07825 Length: 15 October 16, 2003 08:46 Type: N Check: 88 ..
aaa07825

Query Match 0.3%; Score 15; DB 1; Length 15;
Best Local Similarity 93.3%; Pred. No. 0;
Matches 14; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

```
Qy       4501 TTTTTTTTTTTTTTT 4515
              |||||||:|||||||
Db          1 TTTTTTTUTTTTTTT 15
```

RESULT 146
aaa07825/c
; TOIG of: aaa07825 check: 88 from: 1 to: 15
;
; ID AAA07825 standard; DNA; 15 BP.
; XX
; AC AAA07825;
; XX
; DT 23-JUN-2000 (first entry)
; XX
; DE Nucleic acid sequence of a strand of triplex oligomer 14.
; XX
; KW Nucleomonomer; cancer; gene regulation; antisense technology; leukemia;
; KW viral infection; inflammatory response; cellular proliferation;
; KW psoriasis; duplex; triplex; ss.
; XX
; OS Synthetic.
; XX
; PN WO200011013-A1.
; XX
; PD 02-MAR-2000.
; XX
; PF 20-AUG-1999; 99WO-US19029.
; XX
; PR 22-AUG-1998; 98US-0097712.
; XX
; PA (UYNE-) UNIV NEBRASKA.
; XX
; PI Gold B;
; XX
; DR WPI; 2000-246530/21.
; XX
; PT Modified nucleomonomers, used in physiologically stable, non-toxic
; PT oligomers used to inhibit expression of nucleic acids and in gene
; PT regulation, antisense technology and diagnostics -
; XX
; PS Disclosure; Page 30; 42pp; English.
; XX
; CC The invention provides modified nucleomonomers of specified formula and
; CC their pharmaceutically acceptable salts. The nucleomonomers are used as
; CC monomers in oligomers, which are used in pharmaceutical compositions to
; CC inhibit expression of nucleic acid molecules including DNA and RNA in
; CC cells such as bacterial, fungal, yeast, mammalian, cancer and virally-
; CC infected cells. They are used in oligomers for gene regulation,
; CC antisense technology, diagnostic applications to detect target sequences
; CC in biological samples such as those containing pathogenic bacteria,
; CC fungi and viruses, oncogenes, growth hormones and enzymes, to target
; CC genes or encoded RNAs that encode enzymes, hormones, serum proteins,
; CC adhesion molecules, receptor molecules, cytokines, oncogenes, growth
; CC factors and interleukins associated with pathological conditions such as
; CC inflammatory conditions, cardiovascular disorders, immune reactions,
; CC cancer, viral infections and bacterial infections (see AAA07786 for
; CC details of other uses for which the oligomers are suitable for).
; CC Oligomers comprising the nucleomonomers exhibit increased duplex DNA
; CC stability when hybridizing to target nucleic acid sequences, are
; CC physiologically stable, non-toxic and able to penetrate into cells while
; CC maintaining stringent base pair fidelity for target DNA sequences. The
; CC oligomers demonstrate significant single- or double-stranded target
; CC nucleic acid binding activity to form duplexes, triplexes or other forms
; CC of stable association. Sequences AAA07820-834 represent sequences forming
; CC triplex oligomers.
; XX
; SQ Sequence 15 BP; 0 A; 0 C; 0 G; 14 T; 1 U; 0 other;
;
; AAA07825 Length: 15 October 16, 2003 08:46 Type: N Check: 88 ..
aaa07825

Query Match 0.3%; Score 15; DB 1; Length 15;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 15; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy       5207 AAAAAAAAAAAAAAA 5221
              |||||||:|||||||
Db         15 AAAAAAAAAAAAAAA 1
```

RESULT 147
aaa07828
; TOIG of: aaa07828 check: 96 from: 1 to: 15
;
; ID AAA07828 standard; DNA; 15 BP.
; XX
; AC AAA07828;
; XX
; DT 23-JUN-2000 (first entry)
; XX
; DE Nucleic acid sequence of a strand of triplex oligomer 15.
; XX
; KW Nucleomonomer; cancer; gene regulation; antisense technology; leukemia;
; KW viral infection; inflammatory response; cellular proliferation;
; KW psoriasis; duplex; triplex; ss.
; XX
; OS Synthetic.
; XX
; PN WO200011013-A1.
; XX
; PD 02-MAR-2000.
; XX
; PF 20-AUG-1999; 99WO-US19029.
; XX
; PR 22-AUG-1998; 98US-0097712.
; XX
; PA (UYNE-) UNIV NEBRASKA.
; XX

```
; PI   Gold B;
; XX
; DR   WPI; 2000-246530/21.
; XX
; PT   Modified nucleomonomers, used in physiologically stable, non-toxic
; PT   oligomers used to inhibit expression of nucleic acids and in gene
; PT   regulation, antisense technology and diagnostics
; XX
; PS   Disclosure; Page 30; 42pp; English.
; XX
; CC   The invention provides modified nucleomonomers of specified formula and
; CC   their pharmaceutically acceptable salts. The nucleomonomers are used as
; CC   monomers in oligomers, which are used in pharmaceutical compositions to
; CC   inhibit expression of nucleic acid molecules including DNA and RNA in
; CC   cells such as bacterial, fungal, yeast, mammalian, cancer and virally-
; CC   infected cells. They are used in oligomers for gene regulation,
; CC   antisense technology, diagnostic applications to detect target sequences
; CC   in biological samples such as those containing pathogenic bacteria,
; CC   fungi and viruses, oncogenes, growth hormones and enzymes, to target
; CC   genes or encoded RNAs that encode enzymes, hormones, serum proteins,
; CC   adhesion molecules, receptor molecules, cytokines, oncogenes, growth
; CC   factors and interleukins associated with pathological conditions such as
; CC   inflammatory conditions, cardiovascular disorders, immune reactions,
; CC   cancer, viral infections and bacterial infections (see AAA07786 for
; CC   details of other uses for which the oligomers are suitable for).
; CC   Oligomers comprising the nucleomonomers exhibit increased duplex DNA
; CC   stability when hybridizing to target nucleic acid sequences, are
; CC   physiologically stable, non-toxic and able to penetrate into cells while
; CC   maintaining stringent base pair fidelity for target DNA sequences. The
; CC   oligomers demonstrate significant single- or double-stranded target
; CC   nucleic acid binding activity to form duplexes, triplexes or other forms
; CC   of stable association. Sequences AAA07820-834 represent sequences forming
; CC   triplex oligomers.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 13 T; 2 U; 0 other;
;
;   AAA07828  Length: 15  October 16, 2003 08:46  Type: N  Check: 96  ..
aaa07828

  Query Match              0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   86.7%;  Pred. No. 0;
  Matches   13;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4501 TTTTTTTTTTTTTTT 4515
              ||||:|||:|||||
Db          1 TTTTTUTTTUTTTTT 15


RESULT 148
aaa07828/c
;  TOIG of: aaa07828  check: 96  from: 1  to: 15
;
; ID   AAA07828 standard; DNA; 15 BP.
; XX
; AC   AAA07828;
; XX
; DT   23-JUN-2000  (first entry)
; XX
; DE   Nucleic acid sequence of a strand of triplex oligomer 15.
; XX
; KW   Nucleomonomer; cancer; gene regulation; antisense technology; leukemia;
; KW   viral infection; inflammatory response; cellular proliferation;
; KW   psoriasis; duplex; triplex; ss.
; XX
; OS   Synthetic.
; XX
; PN   WO200011013-A1.
; XX
; PD   02-MAR-2000.
; XX
; PF   20-AUG-1999;   99WO-US19029.
; XX
; PR   22-AUG-1998;   98US-0097712.
; XX
; PA   (UYNE-) UNIV NEBRASKA.
; XX
; PI   Gold B;
; XX
; DR   WPI; 2000-246530/21.
; XX
; PT   Modified nucleomonomers, used in physiologically stable, non-toxic
; PT   oligomers used to inhibit expression of nucleic acids and in gene
; PT   regulation, antisense technology and diagnostics
; XX
; PS   Disclosure; Page 30; 42pp; English.
; XX
; CC   The invention provides modified nucleomonomers of specified formula and
; CC   their pharmaceutically acceptable salts. The nucleomonomers are used as
; CC   monomers in oligomers, which are used in pharmaceutical compositions to
; CC   inhibit expression of nucleic acid molecules including DNA and RNA in
; CC   cells such as bacterial, fungal, yeast, mammalian, cancer and virally-
; CC   infected cells. They are used in oligomers for gene regulation,
; CC   antisense technology, diagnostic applications to detect target sequences
; CC   in biological samples such as those containing pathogenic bacteria,
; CC   fungi and viruses, oncogenes, growth hormones and enzymes, to target
; CC   genes or encoded RNAs that encode enzymes, hormones, serum proteins,
; CC   adhesion molecules, receptor molecules, cytokines, oncogenes, growth
; CC   factors and interleukins associated with pathological conditions such as
; CC   inflammatory conditions, cardiovascular disorders, immune reactions,
; CC   cancer, viral infections and bacterial infections (see AAA07786 for
; CC   details of other uses for which the oligomers are suitable for).
; CC   Oligomers comprising the nucleomonomers exhibit increased duplex DNA
; CC   stability when hybridizing to target nucleic acid sequences, are
; CC   physiologically stable, non-toxic and able to penetrate into cells while
; CC   maintaining stringent base pair fidelity for target DNA sequences. The
; CC   oligomers demonstrate significant single- or double-stranded target
; CC   nucleic acid binding activity to form duplexes, triplexes or other forms
; CC   of stable association. Sequences AAA07820-834 represent sequences forming
; CC   triplex oligomers.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 13 T; 2 U; 0 other;
;
;   AAA07828  Length: 15  October 16, 2003 08:46  Type: N  Check: 96  ..
aaa07828

  Query Match              0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity  100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5207 AAAAAAAAAAAAAAA 5221
              |||||||||||||||
Db         15 AAAAAAAAAAAAAAA 1


RESULT 149
aaa07831
;  TOIG of: aaa07831  check: 88  from: 1  to: 15
;
; ID   AAA07831 standard; DNA; 15 BP.
; XX
; AC   AAA07831;
; XX
; DT   23-JUN-2000  (first entry)
; XX
; DE   Nucleic acid sequence of a strand of triplex oligomer 16.
; XX
; KW   Nucleomonomer; cancer; gene regulation; antisense technology; leukemia;
; KW   viral infection; inflammatory response; cellular proliferation;
; KW   psoriasis; duplex; triplex; ss.
; XX
; OS   Synthetic.
; XX
; PN   WO200011013-A1.
; XX
; PD   02-MAR-2000.
; XX
```

```
; PF   20-AUG-1999;   99WO-US19029.
; XX
; PR   22-AUG-1998;   98US-0097712.
; XX
; PA   (UYNE-) UNIV NEBRASKA.
; XX
; PI   Gold B;
; XX
; DR   WPI; 2000-246530/21.
; XX
; PT   Modified nucleomonomers, used in physiologically stable, non-toxic
; PT   oligomers used to inhibit expression of nucleic acids and in gene
; PT   regulation, antisense technology and diagnostics
; XX
; PS   Disclosure; Page 30; 42pp; English.
; XX
; CC   The invention provides modified nucleomonomers of specified formula and
; CC   their pharmaceutically acceptable salts. The nucleomonomers are used as
; CC   monomers in oligomers, which are used in pharmaceutical compositions to
; CC   inhibit expression of nucleic acid molecules including DNA and RNA in
; CC   cells such as bacterial, fungal, yeast, mammalian, cancer and virally-
; CC   infected cells. They are used in oligomers for gene regulation,
; CC   antisense technology, diagnostic applications to detect target sequences
; CC   in biological samples such as those containing pathogenic bacteria,
; CC   fungi and viruses, oncogenes, growth hormones and enzymes, to target
; CC   genes or encoded RNAs that encode enzymes, hormones, serum proteins,
; CC   adhesion molecules, receptor molecules, cytokines, oncogenes, growth
; CC   factors and interleukins associated with pathological conditions such as
; CC   inflammatory conditions, cardiovascular disorders, immune reactions,
; CC   cancer, viral infections and bacterial infections (see AAA07786 for
; CC   details of other uses for which the oligomers are suitable for).
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; CC   stability when hybridizing to target nucleic acid sequences, are
; CC   physiologically stable, non-toxic and able to penetrate into cells while
; CC   maintaining stringent base pair fidelity for target DNA sequences. The
; CC   oligomers demonstrate significant single- or double-stranded target
; CC   nucleic acid binding activity to form duplexes, triplexes or other forms
; CC   of stable association. Sequences AAA07820-834 represent sequences forming
; CC   triplex oligomers.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 14 T; 1 U; 0 other;
;
;   AAA07831  Length: 15  October 16, 2003 08:46  Type: N  Check: 88  ..
aaa07831

  Query Match             0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   93.3%;  Pred. No. 0;
  Matches   14;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4501 TTTTTTTTTTTTTTT 4515
              |||||||:|||||||
Db          1 TTTTTTTUTTTTTTT 15


RESULT 150
aaa07831/c
;  TOIG of: aaa07831  check: 88  from: 1  to: 15
;
; ID   AAA07831 standard; DNA; 15 BP.
; XX
; AC   AAA07831;
; XX
; DT   23-JUN-2000  (first entry)
; XX
; DE   Nucleic acid sequence of a strand of triplex oligomer 16.
; XX
; KW   Nucleomonomer; cancer; gene regulation; antisense technology; leukemia;
; KW   viral infection; inflammatory response; cellular proliferation;
; KW   psoriasis; duplex; triplex; ss.
; XX
; OS   Synthetic.
; XX
; PN   WO200011013-A1.
; XX
; PD   02-MAR-2000.
; XX
; PF   20-AUG-1999;   99WO-US19029.
; XX
; PR   22-AUG-1998;   98US-0097712.
; XX
; PA   (UYNE-) UNIV NEBRASKA.
; XX
; PI   Gold B;
; XX
; DR   WPI; 2000-246530/21.
; XX
; PT   Modified nucleomonomers, used in physiologically stable, non-toxic
; PT   oligomers used to inhibit expression of nucleic acids and in gene
; PT   regulation, antisense technology and diagnostics
; XX
; PS   Disclosure; Page 30; 42pp; English.
; XX
; CC   The invention provides modified nucleomonomers of specified formula and
; CC   their pharmaceutically acceptable salts. The nucleomonomers are used as
; CC   monomers in oligomers, which are used in pharmaceutical compositions to
; CC   inhibit expression of nucleic acid molecules including DNA and RNA in
; CC   cells such as bacterial, fungal, yeast, mammalian, cancer and virally
; CC   infected cells. They are used in oligomers for gene regulation,
; CC   antisense technology, diagnostic applications to detect target sequences
; CC   in biological samples such as those containing pathogenic bacteria,
; CC   fungi and viruses, oncogenes, growth hormones and enzymes, to target
; CC   genes or encoded RNAs that encode enzymes, hormones, serum proteins,
; CC   adhesion molecules, receptor molecules, cytokines, oncogenes, growth
; CC   factors and interleukins associated with pathological conditions such as
; CC   inflammatory conditions, cardiovascular disorders, immune reactions,
; CC   cancer, viral infections and bacterial infections (see AAA07786 for
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; CC   Oligomers comprising the nucleomonomers exhibit increased duplex DNA
; CC   stability when hybridizing to target nucleic acid sequences, are
; CC   physiologically stable, non-toxic and able to penetrate into cells while
; CC   maintaining stringent base pair fidelity for target DNA sequences. The
; CC   oligomers demonstrate significant single- or double-stranded target
; CC   nucleic acid binding activity to form duplexes, triplexes or other forms
; CC   of stable association. Sequences AAA07820-834 represent sequences forming
; CC   triplex oligomers.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 14 T; 1 U; 0 other;
;
;   AAA07831  Length: 15  October 16, 2003 08:46  Type: N  Check: 88  ..
aaa07831

  Query Match             0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5207 AAAAAAAAAAAAAAA 5221
              |||||||||||||||
Db         15 AAAAAAAAAAAAAAA 1


RESULT 151
aaa07834
;  TOIG of: aaa07834  check: 96  from: 1  to: 15
;
; ID   AAA07834 standard; DNA; 15 BP.
; XX
; AC   AAA07834;
; XX
; DT   23-JUN-2000  (first entry)
; XX
; DE   Nucleic acid sequence of a strand of triplex oligomer 17.
; XX
; KW   Nucleomonomer; cancer; gene regulation; antisense technology; leukemia;
; KW   viral infection; inflammatory response; cellular proliferation;
; KW   psoriasis; duplex; triplex; ss.
; XX
```

```
; OS   Synthetic.
; XX
; PN   WO200011013-A1.
; XX
; PD   02-MAR-2000.
; XX
; PF   20-AUG-1999;   99WO-US19029.
; XX
; PR   22-AUG-1998;   98US-0097712.
; XX
; PA   (UYNE-) UNIV NEBRASKA.
; XX
; PI   Gold B;
; XX
; DR   WPI; 2000-246530/21.
; XX
; PT   Modified nucleomonomers, used in physiologically stable, non-toxic
; PT   oligomers used to inhibit expression of nucleic acids and in gene
; PT   regulation, antisense technology and diagnostics -
; XX
; PS   Disclosure; Page 30; 42pp; English.
; XX
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; CC   inhibit expression of nucleic acid molecules including DNA and RNA in
; CC   cells such as bacterial, fungal, yeast, mammalian, cancer and virally-
; CC   infected cells. They are used in oligomers for gene regulation,
; CC   antisense technology, diagnostic applications to detect target sequences
; CC   in biological samples such as those containing pathogenic bacteria,
; CC   fungi and viruses, oncogenes, growth hormones and enzymes, to target
; CC   genes or encoded RNAs that encode enzymes, hormones, serum proteins,
; CC   adhesion molecules, receptor molecules, cytokines, oncogenes, growth
; CC   factors and interleukins associated with pathological conditions such as
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; CC   maintaining stringent base pair fidelity for target DNA sequences. The
; CC   oligomers demonstrate significant single- or double-stranded target
; CC   nucleic acid binding activity to form duplexes, triplexes or other forms
; CC   of stable association. Sequences AAA07820-834 represent sequences forming
; CC   triplex oligomers.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 13 T; 2 U; 0 other;
;
;  AAA07834  Length: 15  October 16, 2003 08:46  Type: N  Check: 96  ..
aaa07834

  Query Match              0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   86.7%;  Pred. No. 0;
  Matches   13;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4501 TTTTTTTTTTTTTTT 4515
              ||||:|||:|||||
Db          1 TTTTTUTTTUTTTTT 15


RESULT 152
aaa07834/c
;  TOIG of: aaa07834  check: 96  from: 1  to: 15
;
; ID   AAA07834 standard; DNA; 15 BP.
; XX
; AC   AAA07834;
; XX
; DT   23-JUN-2000  (first entry)
; XX
; DE   Nucleic acid sequence of a strand of triplex oligomer 17.
; XX
; KW   Nucleomonomer; cancer; gene regulation; antisense technology; leukemia;
; KW   viral infection; inflammatory response; cellular proliferation;
; KW   psoriasis; duplex; triplex; ss.
; XX
; OS   Synthetic.
; XX
; PN   WO200011013-A1.
; XX
; PD   02-MAR-2000.
; XX
; PF   20-AUG-1999;   99WO-US19029.
; XX
; PR   22-AUG-1998;   98US-0097712.
; XX
; PA   (UYNE-) UNIV NEBRASKA.
; XX
; PI   Gold B;
; XX
; DR   WPI; 2000-246530/21.
; XX
; PT   Modified nucleomonomers, used in physiologically stable, non-toxic
; PT   oligomers used to inhibit expression of nucleic acids and in gene
; PT   regulation, antisense technology and diagnostics -
; XX
; PS   Disclosure; Page 30; 42pp; English.
; XX
; CC   The invention provides modified nucleomonomers of specified formula and
; CC   their pharmaceutically acceptable salts. The nucleomonomers are used as
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; CC   inhibit expression of nucleic acid molecules including DNA and RNA in
; CC   cells such as bacterial, fungal, yeast, mammalian, cancer and virally
; CC   infected cells. They are used in oligomers for gene regulation,
; CC   antisense technology, diagnostic applications to detect target sequences
; CC   in biological samples such as those containing pathogenic bacteria,
; CC   fungi and viruses, oncogenes, growth hormones and enzymes, to target
; CC   genes or encoded RNAs that encode enzymes, hormones, serum proteins,
; CC   adhesion molecules, receptor molecules, cytokines, oncogenes, growth
; CC   factors and interleukins associated with pathological conditions such as
; CC   inflammatory conditions, cardiovascular disorders, immune reactions,
; CC   cancer, viral infections and bacterial infections (see AAA07786 for
; CC   details of other uses for which the oligomers are suitable for).
; CC   Oligomers comprising the nucleomonomers exhibit increased duplex DNA
; CC   stability when hybridizing to target nucleic acid sequences, are
; CC   physiologically stable, non-toxic and able to penetrate into cells while
; CC   maintaining stringent base pair fidelity for target DNA sequences. The
; CC   oligomers demonstrate significant single- or double-stranded target
; CC   nucleic acid binding activity to form duplexes, triplexes or other forms
; CC   of stable association. Sequences AAA07820-834 represent sequences forming
; CC   triplex oligomers.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 13 T; 2 U; 0 other;
;
;  AAA07834  Length: 15  October 16, 2003 08:46  Type: N  Check: 96  ..
aaa07834

  Query Match              0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity  100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5207 AAAAAAAAAAAAAAA 5221
              |||||||||| |||
Db         15 AAAAAAAAAAAAAAA 1


RESULT 153
aaa62347
;  TOIG of: aaa62347  check: 80  from: 1  to: 15
;
; ID   AAA62347 standard; DNA; 15 BP.
; XX
; AC   AAA62347;
; XX
; DT   06-NOV-2000  (first entry)
; XX
```

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; DE   Oligonucleotide #3 containing 3'-C-amino-5'(R)-C,3'-N-ethanothymidine.
; XX
; KW   Conformationally-locked oligonucleotide; antisense inhibitor;
; KW   bicyclic sugar nucleoside analogue; gene probe; ds.
; XX
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1
; FT                   /*tag= a
; FT                   /mod_base= OTHER
; FT                   /note= "3'-C-amino-5'(R)-C,3'-N-ethanothymidine"
; FT   modified_base   3
; FT                   /*tag= b
; FT                   /mod_base= OTHER
; FT                   /note= "3'-C-amino-5'(R)-C,3'-N-ethanothymidine"
; FT   modified_base   5
; FT                   /*tag= c
; FT                   /mod_base= OTHER
; FT                   /note= "3'-C-amino-5'(R)-C,3'-N-ethanothymidine"
; FT   modified_base   9
; FT                   /*tag= d
; FT                   /mod_base= OTHER
; FT                   /note= "3'-C-amino-5'(R)-C,3'-N-ethanothymidine"
; FT   modified_base   11
; FT                   /*tag= e
; FT                   /mod_base= OTHER
; FT                   /note= "3'-C-amino-5'(R)-C,3'-N-ethanothymidine"
; FT   modified_base   13
; FT                   /*tag= f
; FT                   /mod_base= OTHER
; FT                   /note= "3'-C-amino-5'(R)-C,3' N-ethanothymidine"
; FT   modified_base   15
; FT                   /*tag= g
; FT                   /mod_base= OTHER
; FT                   /note= "3'-C-amino-5'(R)-C,3'-N-ethanothymidine"
; XX
; PN   US6083482-A.
; XX
; PD   04-JUL-2000.
; XX
; PF   11-MAY-1999;   99US-0309742.
; XX
; PR   11-MAY-1999;   99US-0309742.
; XX
; PA   (ICNC ) ICN PHARM INC.
; XX
; PI   Wang G;
; XX
; DR   WPI; 2000-451496/39.
; XX
; PT   New conformationally restricted 3',5'-bridged nucleosides and
; PT   oligonucleotides useful as antisense therapeutics or as gene-specific
; PT   diagnostics -
; XX
; PS   Example 20; Column 15; 10pp; English.
; XX
; CC   The present sequence is an oligonucleotide containing
; CC   3'-C-amino-5'(R)-C,3'-N-ethanothymidine, a bicyclic-sugar nucleoside.
; CC   All nucleotides in the sequence were incorporated by phosphoramidite
; CC   chemistry using a DNA synthesiser. Bicyclic sugar nucleosides are
; CC   conformationally restricted 3',5'-bridged nucleosides which can be used
; CC   as building blocks for oligonucleotides. Oligonucleotides can be
; CC   produced that have certain, desired, geometrical shapes and entropy
; CC   advantages. They may have superior hybridisation to DNA and RNA, and
; CC   excellent biological stability. The conformationally-modified
; CC   oligonucleotides may be useful as antisense inhibitors of gene expression
; CC   or as gene probes, and may therefore be used in antisense therapeutics or
; CC   gene-specific diagnostics.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 15 T; 0 other;
;
;  AAA62347  Length: 15  October 16, 2003 08:46  Type: N  Check: 80  ..

aaa62347

  Query Match             0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4501 TTTTTTTTTTTTTTT 4515
              |||||||||||||||
Db          1 TTTTTTTTTTTTTTT 15


RESULT 154
aaa62347/c
;  TOIG of: aaa62347  check: 80  from: 1  to: 15
;
; ID   AAA62347 standard; DNA; 15 BP
; XX
; AC   AAA62347;
; XX
; DT   06-NOV-2000  (first entry)
; XX
; DE   Oligonucleotide #3 containing 3'-C-amino-5'(R)-C,3'-N-ethanothymidine.
; XX
; KW   Conformationally locked oligonucleotide; antisense inhibitor;
; KW   bicyclic sugar nucleoside analogue; gene probe; ds.
; XX
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1
; FT                   /*tag= a
; FT                   /mod_base= OTHER
; FT                   /note= "3'-C-amino-5'(R)-C,3'-N-ethanothymidine"
; FT   modified_base   3
; FT                   /*tag= b
; FT                   /mod_base= OTHER
; FT                   /note= "3'-C-amino-5'(R)-C,3'-N-ethanothymidine"
; FT   modified_base   5
; FT                   /*tag= c
; FT                   /mod_base= OTHER
; FT                   /note= "3'-C-amino 5'(R)-C,3'-N-ethanothymidine"
; FT   modified_base   9
; FT                   /*tag= d
; FT                   /mod_base= OTHER
; FT                   /note= "3'-C-amino 5'(R) C,3'-N-ethanothymidine"
; FT   modified_base   11
; FT                   /*tag= e
; FT                   /mod_base= OTHER
; FT                   /note= "3'-C amino 5'(R)-C,3'-N-ethanothymidine"
; FT   modified_base   13
; FT                   /*tag= f
; FT                   /mod_base= OTHER
; FT                   /note= "3'-C-amino 5'(R)-C,3'-N-ethanothymidine"
; FT   modified_base   15
; FT                   /*tag= g
; FT                   /mod_base= OTHER
; FT                   /note= "3'-C-amino-5'(R)-C,3'-N-ethanothymidine"
; XX
; PN   US6083482-A.
; XX
; PD   04-JUL-2000.
; XX
; PF   11-MAY-1999;   99US-0309742.
; XX
; PR   11-MAY-1999;   99US-0309742.
; XX
; PA   (ICNC ) ICN PHARM INC.
; XX
; PI   Wang G;
; XX
; DR   WPI; 2000-451496/39.
; XX
; PT   New conformationally restricted 3',5'-bridged nucleosides and
```

```
; PT   oligonucleotides useful as antisense therapeutics or as gene-specific
; PT   diagnostics -
; XX
; PS   Example 20; Column 15; 10pp; English.
; XX
; CC   The present sequence is an oligonucleotide containing
; CC   3'-C-amino-5'(R)-C,3'-N-ethanothymidine, a bicyclic-sugar nucleoside.
; CC   All nucleotides in the sequence were incorporated by phosphoramidite
; CC   chemistry using a DNA synthesiser. Bicyclic sugar nucleosides are
; CC   conformationally restricted 3',5'-bridged nucleosides which can be used
; CC   as building blocks for oligonucleotides. Oligonucleotides can be
; CC   produced that have certain, desired, geometrical shapes and entropy
; CC   advantages. They may have superior hybridisation to DNA and RNA, and
; CC   excellent biological stability. The conformationally-modified
; CC   oligonucleotides may be useful as antisense inhibitors of gene expression
; CC   or as gene probes, and may therefore be used in antisense therapeutics or
; CC   gene-specific diagnostics.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 15 T; 0 other;
;
;  AAA62347  Length: 15  October 16, 2003 08:46  Type: N  Check: 80  ..
aaa62347

  Query Match              0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5207 AAAAAAAAAAAAAAA 5221
              |||||||||||||||
Db         15 AAAAAAAAAAAAAAA 1


RESULT 155
aaa62348
;  TOIG of: aaa62348  check: 80  from: 1  to: 15
;
; ID   AAA62348 standard; DNA; 15 BP.
; XX
; AC   AAA62348;
; XX
; DT   06-NOV-2000  (first entry)
; XX
; DE   Oligonucleotide #4 containing 3'-C-amino-5'(R)-C,3'-N-ethanothymidine.
; XX
; KW   Conformationally-locked oligonucleotide; antisense inhibitor;
; KW   bicyclic sugar nucleoside analogue; gene probe; ds.
; XX
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   7
; FT                   /*tag=  a
; FT                   /mod_base= OTHER
; FT                   /note= "3'-C-amino-5'(R)-C,3'-3'-N-ethanothymidine"
; FT   modified_base   9
; FT                   /*tag=  b
; FT                   /mod_base= OTHER
; FT                   /note= "3'-C-amino-5'(R)-C,3'-3' N-ethanothymidine"
; XX
; PN   US6083482-A.
; XX
; PD   04-JUL-2000.
; XX
; PF   11-MAY-1999;   99US-0309742.
; XX
; PR   11-MAY-1999;   99US-0309742.
; XX
; PA   (ICNC ) ICN PHARM INC.
; XX
; PI   Wang G;
; XX
; DR   WPI; 2000-451496/39.
; XX
; PT   New conformationally restricted 3',5'-bridged nucleosides and
; PT   oligonucleotides useful as antisense therapeutics or as gene-specific
; PT   diagnostics -
; XX
; PS   Example 20; Column 15; 10pp; English.
; XX
; CC   The present sequence is an oligonucleotide containing
; CC   3'-C-amino-5'(R)-C,3'-N-ethanothymidine, a bicyclic-sugar nucleoside.
; CC   All nucleotides in the sequence were incorporated by phosphoramidite
; CC   chemistry using a DNA synthesiser. Bicyclic sugar nucleosides are
; CC   conformationally restricted 3',5'-bridged nucleosides which can be used
; CC   as building blocks for oligonucleotides. Oligonucleotides can be
; CC   produced that have certain, desired, geometrical shapes and entropy
; CC   advantages. They may have superior hybridisation to DNA and RNA, and
; CC   excellent biological stability. The conformationally-modified
; CC   oligonucleotides may be useful as antisense inhibitors of gene expression
; CC   or as gene probes, and may therefore be used in antisense therapeutics or
; CC   gene-specific diagnostics
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 15 T; 0 other;
;
;  AAA62348  Length: 15  October 16, 2003 08:46  Type: N  Check: 80  ..
aaa62348

  Query Match              0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4501 TTTTTTTTTTTTTTT 4515
              |||||||||||||||
Db          1 TTTTTTTTTTTTTTT 15


RESULT 156
aaa62348/c
;  TOIG of: aaa62348  check: 80  from: 1  to: 15
;
; ID   AAA62348 standard; DNA; 15 BP.
; XX
; AC   AAA62348;
; XX
; DT   06-NOV-2000  (first entry)
; XX
; DE   Oligonucleotide #4 containing 3'-C-amino-5'(R)-C,3'-N-ethanothymidine.
; XX
; KW   Conformationally-locked oligonucleotide; antisense inhibitor;
; KW   bicyclic sugar nucleoside analogue; gene probe; ds.
; XX
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   7
; FT                   /*tag=  a
; FT                   /mod_base= OTHER
; FT                   /note= "3'-C-amino-5'(R)-C,3'-3'-N-ethanothymidine"
; FT   modified_base   9
; FT                   /*tag=  b
; FT                   /mod_base= OTHER
; FT                   /note= "3'-C-amino-5'(R)-C,3'-3'-N-ethanothymidine"
; XX
; PN   US6083482-A.
; XX
; PD   04-JUL-2000.
; XX
; PF   11-MAY-1999;   99US-0309742.
; XX
; PR   11-MAY-1999;   99US-0309742.
; XX
; PA   (ICNC ) ICN PHARM INC.
; XX
; PI   Wang G;
; XX
; DR   WPI; 2000-451496/39.
```

```
; XX
; PT   New conformationally restricted 3',5'-bridged nucleosides and
; PT   oligonucleotides useful as antisense therapeutics or as gene-specific
; PT   diagnostics -
; XX
; PS   Example 20; Column 15; 10pp; English.
; XX
; CC   The present sequence is an oligonucleotide containing
; CC   3'-C-amino-5'(R)-C,3'-N-ethanothymidine, a bicyclic-sugar nucleoside.
; CC   All nucleotides in the sequence were incorporated by phosphoramidite
; CC   chemistry using a DNA synthesiser. Bicyclic sugar nucleosides are
; CC   conformationally restricted 3',5'-bridged nucleosides which can be used
; CC   as building blocks for oligonucleotides. Oligonucleotides can be
; CC   produced that have certain, desired, geometrical shapes and entropy
; CC   advantages. They may have superior hybridisation to DNA and RNA, and
; CC   excellent biological stability. The conformationally-modified
; CC   oligonucleotides may be useful as antisense inhibitors of gene expression
; CC   or as gene probes, and may therefore be used in antisense therapeutics or
; CC   gene-specific diagnostics.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 15 T; 0 other;
;
;   AAA62348  Length: 15  October 16, 2003 08:46  Type: N  Check: 80  ..
aaa62348

  Query Match              0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5207 AAAAAAAAAAAAAAA 5221
              |||||||||||||||
Db         15 AAAAAAAAAAAAAAA 1


RESULT 157
aaa62350
;  TOIG of: aaa62350  check: 80  from: 1  to: 15
;
; ID   AAA62350 standard; DNA; 15 BP.
; XX
; AC   AAA62350;
; XX
; DT   06-NOV-2000  (first entry)
; XX
; DE   Oligonucleotide #2 containing 3'-C-amino-5'(S)-C,3'-N-ethanothymidine.
; XX
; KW   Conformationally-locked oligonucleotide; antisense inhibitor;
; KW   bicyclic sugar nucleoside analogue; gene probe; ds.
; XX
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   7
; FT                   /*tag=  a
; FT                   /mod_base= OTHER
; FT                   /note= "3'-C-amino-5'(S)-C,3'-N ethanothymidine"
; FT   modified_base   9
; FT                   /*tag=  b
; FT                   /mod_base= OTHER
; FT                   /note= "3'-C-amino-5'(S)-C,3' N-ethanothymidine"
; XX
; PN   US6083482-A.
; XX
; PD   04-JUL-2000.
; XX
; PF   11-MAY-1999;   99US-0309742.
; XX
; PR   11-MAY-1999;   99US-0309742.
; XX
; PA   (ICNC ) ICN PHARM INC.
; XX
; PI   Wang G;
; XX
; DR   WPI; 2000-451496/39.
; XX
; PT   New conformationally restricted 3',5'-bridged nucleosides and
; PT   oligonucleotides useful as antisense therapeutics or as gene-specific
; PT   diagnostics -
; XX
; PS   Example 20; Column 16; 10pp; English.
; XX
; CC   The present sequence is an oligonucleotide containing
; CC   3'-C-amino-5'(S)-C,3'-N-ethanothymidine, a bicyclic-sugar nucleoside.
; CC   All nucleotides in the sequence were incorporated by phosphoramidite
; CC   chemistry using a DNA synthesiser. Bicyclic sugar nucleosides are
; CC   conformationally restricted 3',5'-bridged nucleosides which can be used
; CC   as building blocks for oligonucleotides. Oligonucleotides can be
; CC   produced that have certain, desired, geometrical shapes and entropy
; CC   advantages. They may have superior hybridisation to DNA and RNA, and
; CC   excellent biological stability. The conformationally-modified
; CC   oligonucleotides may be useful as antisense inhibitors of gene expression
; CC   or as gene probes, and may therefore be used in antisense therapeutics or
; CC   gene-specific diagnostics.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 15 T; 0 other;
;
;   AAA62350  Length: 15  October 16, 2003 08:46  Type: N  Check: 80  ..
aaa62350

  Query Match              0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4501 TTTTTTTTTTTTTTT 4515
              |||||||||||||||
Db          1 TTTTTTTTTTTTTTT 15


RESULT 158
aaa62350/c
;  TOIG of: aaa62350  check: 80  from: 1  to: 15
;
; ID   AAA62350 standard; DNA; 15 BP.
; XX
; AC   AAA62350;
; XX
; DT   06-NOV-2000  (first entry)
; XX
; DE   Oligonucleotide #2 containing 3'-C amino-5'(S)-C,3'-N-ethanothymidine.
; XX
; KW   Conformationally-locked oligonucleotide; antisense inhibitor;
; KW   bicyclic sugar nucleoside analogue; gene probe; ds.
; XX
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   7
; FT                   /*tag=  a
; FT                   /mod_base= OTHER
; FT                   /note= "3' C-amino-5'(S)-C,3'-N-ethanothymidine"
; FT   modified_base   9
; FT                   /*tag=  b
; FT                   /mod_base= OTHER
; FT                   /note= "3'-C amino 5'(S)-C,3'-N-ethanothymidine"
; XX
; PN   US6083482-A.
; XX
; PD   04-JUL-2000.
; XX
; PF   11-MAY-1999;   99US-0309742.
; XX
; PR   11-MAY-1999;   99US-0309742.
; XX
; PA   (ICNC ) ICN PHARM INC.
; XX
; PI   Wang G;
```

```
; XX
; DR   WPI; 2000-451496/39.
; XX
; PT   New conformationally restricted 3',5'-bridged nucleosides and
; PT   oligonucleotides useful as antisense therapeutics or as gene-specific
; PT   diagnostics -
; XX
; PS   Example 20; Column 16; 10pp; English.
; XX
; CC   The present sequence is an oligonucleotide containing
; CC   3'-C-amino-5'(S)-C,3'-N-ethanothymidine, a bicyclic-sugar nucleoside.
; CC   All nucleotides in the sequence were incorporated by phosphoramidite
; CC   chemistry using a DNA synthesiser. Bicyclic sugar nucleosides are
; CC   conformationally restricted 3',5'-bridged nucleosides which can be used
; CC   as building blocks for oligonucleotides. Oligonucleotides can be
; CC   produced that have certain, desired, geometrical shapes and entropy
; CC   advantages. They may have superior hybridisation to DNA and RNA, and
; CC   excellent biological stability. The conformationally-modified
; CC   oligonucleotides may be useful as antisense inhibitors of gene expression
; CC   or as gene probes, and may therefore be used in antisense therapeutics or
; CC   gene-specific diagnostics.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 15 T; 0 other;
;
;  AAA62350  Length: 15  October 16, 2003 08:46  Type: N  Check: 80  ..
aaa62350

  Query Match             0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5207 AAAAAAAAAAAAAAA 5221
             |||||||||||||||
Db         15 AAAAAAAAAAAAAAA 1


RESULT 159
aad22531
;  TOIG of: aad22531  check: 7800  from: 1  to: 15
;
; ID   AAD22531 standard; RNA; 15 BP.
; XX
; AC   AAD22531;
; XX
; DT   12-FEB-2002  (first entry)
; XX
; DE   Retroviral reverse transcriptase inhibitor DNP-poly [A] RNA fragment.
; XX
; KW   RNase inhibitor; anti-HIV; cytostatic; hepatotropic; antiinflammatory;
; KW   virucide; oncogene; cancer; transcription; translation; leukaemia virus;
; KW   hepatitis virus; human immunodeficiency virus; retroviral; DNP-poly [A];
; KW   poly-2'-O-(2,4-dinitrophenyl)-poly [A]; viral reverse transcriptase; ss.
; XX
; OS   Retrovirus.
; XX
; PN   US6291438-B1.
; XX
; PD   18-SEP-2001.
; XX
; PF   06-OCT-1998;   98US-0167375.
; XX
; PR   24-FEB-1993;   93US-0022055.
; PR   23-FEB-1994;   94US-0200650.
; PR   22-FEB-1996;   96US-0604871.
; XX
; PA   (WANG/) WANG J H.
; XX
; PI   Wang JH;
; XX
; DR   WPI; 2002-009339/01.
; XX
; PT   Derivatized antisense oligoribonucleotide useful to inhibit e.g. viral
; PT   reverse transcriptase comprises at the 2'-O position of the
; PT   oligoribonucleotide, a hydrophobic carrier reagent containing a poly
; PT   substituted phenyl compound -
; XX
; PS   Example 3; Column 24; 56pp; English.
; XX
; CC   The invention relates to derivatised antisense oligoribonucleotides with
; CC   enhanced membrane permeability and stability. The derivatised antisense
; CC   oligoribonucleotide complementary to a sequence of nucleotides found
; CC   in a virus or a cell is useful for inhibiting e.g., viral reverse
; CC   transcriptase. Derivatised antisense oligoribonucleotide is conjugated at
; CC   the 2'-O position with a hydrophobic carrier reagent containing a poly
; CC   substituted phenyl compound. The derivatised oligoribonucleotides are
; CC   used to decrease the expression of oncogenes and thereby decrease the
; CC   expression of cancer cells which rely upon oncogene expression for their
; CC   phenotypic and pathological properties. The oligoribonucleotides are also
; CC   used for increasing the effectiveness of antisense oligonucleotide
; CC   targetted to a gene associated with a disease or a condition in an
; CC   animal. To alter gene transcription and/or translation for any gene or
; CC   gene segment responsible for expression, to inhibit viral reverse
; CC   transcriptase, to inhibit the expression of leukaemia virus, hepatitis
; CC   virus, oncogenes and human immunodeficiency virus. The present sequence
; CC   is retroviral reverse transcriptase inhibitor DNP-poly [A] RNA fragment
; CC   which is used in the treatment of moloney murine leukaemia virus (MuLV)
; CC   in mammals.
; XX
; SQ   Sequence 15 BP; 15 A; 0 C; 0 G; 0 T; 0 other;
;
;  AAD22531  Length: 15  October 16, 2003 08:46  Type: N  Check: 7800  ..
aad22531

  Query Match             0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5207 AAAAAAAAAAAAAAA 5221
             |||||||||||||||
Db          1 AAAAAAAAAAAAAAA 15


RESULT 160
aad22531/c
;  TOIG of: aad22531  check: 7800  from: 1  to: 15
;
; ID   AAD22531 standard; RNA; 15 BP.
; XX
; AC   AAD22531;
; XX
; DT   12-FEB-2002  (first entry)
; XX
; DE   Retroviral reverse transcriptase inhibitor DNP-poly [A] RNA fragment.
; XX
; KW   RNase inhibitor; anti-HIV; cytostatic; hepatotropic; antiinflammatory;
; KW   virucide; oncogene; cancer; transcription; translation; leukaemia virus;
; KW   hepatitis virus; human immunodeficiency virus; retroviral; DNP-poly [A];
; KW   poly 2'-O-(2,4-dinitrophenyl)-poly [A]; viral reverse transcriptase; ss.
; XX
; OS   Retrovirus.
; XX
; PN   US6291438-B1.
; XX
; PD   18-SEP-2001.
; XX
; PF   06-OCT-1998;   98US-0167375.
; XX
; PR   24-FEB-1993;   93US-0022055.
; PR   23-FEB-1994;   94US-0200650.
; PR   22-FEB-1996;   96US-0604871.
; XX
; PA   (WANG/) WANG J H.
; XX
; PI   Wang JH;
; XX
; DR   WPI; 2002-009339/01.
```

```
; XX
; PT   Derivatized antisense oligoribonucleotide useful to inhibit e.g. viral
; PT   reverse transcriptase comprises at the 2'-O position of the
; PT   oligoribonucleotide, a hydrophobic carrier reagent containing a poly
; PT   substituted phenyl compound -
; XX
; PS   Example 3; Column 24; 56pp; English.
; XX
; CC   The invention relates to derivatised antisense oligoribonucleotides with
; CC   enhanced membrane permeability and stability. The derivatised antisense
; CC   oligoribonucleotide complementary to a sequence of nucleotides found
; CC   in a virus or a cell is useful for inhibiting e.g., viral reverse
; CC   transcriptase. Derivatised antisense oligoribonucleotide is conjugated at
; CC   the 2'-O position with a hydrophobic carrier reagent containing a poly
; CC   substituted phenyl compound. The derivatised oligoribonucleotides are
; CC   used to decrease the expression of oncogenes and thereby decrease the
; CC   expression of cancer cells which rely upon oncogene expression for their
; CC   phenotypic and pathological properties. The oligoribonucleotides are also
; CC   used for increasing the effectiveness of antisense oligonucleotide
; CC   targetted to a gene associated with a disease or a condition in an
; CC   animal. To alter gene transcription and/or translation for any gene or
; CC   gene segment responsible for expression, to inhibit viral reverse
; CC   transcriptase, to inhibit the expression of leukaemia virus, hepatitis
; CC   virus, oncogenes and human immunodeficiency virus. The present sequence
; CC   is retroviral reverse transcriptase inhibitor DNP-poly [A] RNA fragment
; CC   which is used in the treatment of moloney murine leukaemia virus (MuLV)
; CC   in mammals.
; XX
; SQ   Sequence 15 BP; 15 A; 0 C; 0 G; 0 U; 0 other;
;
;  AAD22531  Length: 15  October 16, 2003 08:46  Type: N  Check: 7800  ..
aad22531

  Query Match             0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4501 TTTTTTTTTTTTTTT 4515
             |||||||||||||||
Db         15 TTTTTTTTTTTTTTT 1


RESULT 161
aaf16603
;  TOIG of: aaf16603  check: 7819  from: 1  to: 15
;
; ID   AAF16603 standard; DNA; 15 BP.
; XX
; AC   AAF16603;
; XX
; DT   13-MAR-2001  (first entry)
; XX
; DE   Gastric acid production inhibiting oligonucleotide SEQ ID NO: 90.
; XX
; KW   Gastric acid disturbance; gastric reflux; gastritis; dyspepsia;
; KW   stomach ulcer; duodenal ulcer; Helicobacter pylori; antisense;
; KW   DNA-RNA hybrid; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO200071164-A1.
; XX
; PD   30-NOV-2000.
; XX
; PF   24-MAY-2000; 2000WO-AU00498.
; XX
; PR   24-MAY-1999;   99AU-0000510.
; XX
; PA   (TACH/) TACHAS G.
; XX
; PI   Tachas G;
; XX
; DR   WPI; 2001-025093/03.
; XX
; PT   Treating gastric acid disturbance by administering an oligonucleotide
; PT   which modulates the activity of a polypeptide involved in gastric acid
; PT   production or secretion -
; XX
; PS   Example 3; Page 148; 164pp; English.
; XX
; CC   The present invention provides oligonucleotides, and methods for their
; CC   use, which are useful in modulating the action of proteins involved in
; CC   gastric acid production. The target protein is preferably the histamine
; CC   H2 receptor or one of the proteins which form part of the gastric proton
; CC   pump. The sequences and methods of the invention are useful in the
; CC   treatment of gastric reflux, gastritis, dyspepsia, stomach ulcers,
; CC   duodenal ulcers and other gastric acid disturbances, most of which are
; CC   caused by Helicobacter pylori.
; XX
; SQ   Sequence 15 BP; 14 A; 0 C; 0 G; 1 T; 0 other;
;
;  AAF16603  Length: 15  October 16, 2003 08:46  Type: N  Check: 7819  ..
aaf16603

  Query Match             0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5206 TAAAAAAAAAAAAAA 5220
             |||||||||||||||
Db          1 TAAAAAAAAAAAAAA 15


RESULT 162
aaf49041
;  TOIG of: aaf49041  check: 9885  from: 1  to: 15
;
; ID   AAF49041 standard; DNA; 15 BP.
; XX
; AC   AAF49041;
; XX
; DT   30-MAR 2001  (first entry)
; XX
; DE   IGF-I oligonucleotide #1.
; XX
; KW   Antisense therapy; antiproliferative; antiinflammatory; antipsoriatic;
; KW   cytostatic; dermatological; cardiant; virucide; ophthalmological; keloid;
; KW   skin disorder; Insulin-like Growth Factor I receptor; IGF-1; pityriasis;
; KW   IGF binding protein; IGFBP-2; IGFBP3; inflammation; psoriasis; pilaris;
; KW   growth factor mediated cell proliferation; ichthyosis; serborrhoea; ruba;
; KW   keratosis; neoplasia; scleroderma; wart; skin cancer; sclerotic disease;
; KW   hyperneovascular condition; hyperplasia; kidney disease;
; KW   neovascular condition of the retina; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO200078341-A1.
; XX
; PD   28-DEC 2000.
; XX
; PF   21 JUN-2000; 2000WO-AU00693.
; XX
; PR   21-JUN-1999;   99US-0140345.
; XX
; PA   (MURD-) MURDOCH CHILDRENS RES INST.
; XX
; PI   Wraight CJ, Werther GA, Edmondson SR;
; XX
; DR   WPI; 2001-041421/05.
; XX
; PT   Ameliorating the effects of a disorder, e.g. psoriasis, by
; PT   administering UV (ultra-violet) treatment (optional) and an antisense
; PT   nucleic acid that inhibits or reduces growth factor mediated cell
; PT   proliferation and/or inflammation -
; XX
; PS   Example 8; Page 60; 201pp; English.
```

```
; XX
; CC   The present invention relates to a method for ameliorating the effects
; CC   of skin disorders. The method comprises contacting the skin with an
; CC   antisense oligonucleotide, (for Insulin-like Growth Factor [IGF]-1
; CC   receptor, IGF binding protein [IGFBP]-2 or IGFBP3), which is capable of
; CC   inhibiting or reducing growth factor mediated cell proliferation,
; CC   inflammation and/or other disorders. The present sequence is an
; CC   oligonucleotide which can be used to design the antisense
; CC   oligonucleotides of the present invention (see AAF45151 and
; CC   AAF45153-F45161). The method is useful for ameliorating the effects of
; CC   psoriasis, ichthyosis, pityriasis, ruba, pilaris, serborrhoea, keloids,
; CC   keratosis, neoplasias, scleroderma, warts, benign growths, cancers of the
; CC   skin, a hyperneovascular condition such as a neovascular condition of the
; CC   retina, brain or skin, growth factor-mediated malignancies, other
; CC   sclerotic disease, kidney disease, hyperproliferation of the inside of
; CC   blood vessels or any other hyperplasia.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 1 G; 14 T; 0 other;
;
;  AAF49041  Length: 15  October 16, 2003 08:46  Type: N  Check: 9885  ..
aaf49041

  Query Match             0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4502 TTTTTTTTTTTTTTG 4516
              |||||||||||||||
Db          1 TTTTTTTTTTTTTTG 15


RESULT 163
aah49243
;  TOIG of: aah49243  check: 80  from: 1  to: 15
;
; ID   AAH49243 standard; DNA; 15 BP.
; XX
; AC   AAH49243;
; XX
; DT   26-NOV-2001  (first entry)
; XX
; DE   PNA-forming oligonucleotide #7.
; XX
; KW   Polyamide-oligonucleotide derivative; anticancer; antiproliferative;
; KW   antiviral; hepatotropic; vasotropic; antisense inhibition; ribozyme;
; KW   integrin; cell-cell adhesion; cancer; restenosis; stability; PNA;
; KW   peptide nucleic acid; ss.
; XX
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   9
; FT                   /*tag=  a
; FT                   /mod_base= OTHER
; FT                   /note= "t-but"
; FT   modified_base   15
; FT                   /*tag=  b
; FT                   /mod_base= OTHER
; FT                   /note= "t-hex"
; XX
; PN   EP1113021-A2.
; XX
; PD   04-JUL-2001.
; XX
; PF   08-MAR-1995; 2001EP-0104012.
; XX
; PR   14-MAR-1994;   94DE-4408528.
; PR   08-MAR-1995;   95EP-0103332.
; XX
; PA   (AVET ) AVENTIS PHARMA DEUT GMBH.
; XX
; PI   Uhlmann E,  Breipohl G;
; XX
; DR   WPI; 2001-591267/67.
; XX
; PT   New DNA-peptide nucleic acid chimeras, useful e.g. as antisense agents
; PT   for treating e.g. cancer, also as diagnostic probes and primers
; XX
; PS   Example 26; Page 40; 54pp; German.
; XX
; CC   This invention describes novel polyamide-oligonucleotide derivatives (I)
; CC   and their physiologically acceptable salts of formula
; CC   F((DNA)-Li)_q(PNA-Li)_r(DNA-Li)_s(PNA)_t)_xF' where q, r, s, t  = 0 or 1,
; CC   with the sum of two or more adjacent letters at least 2; x  = 1-20; DNA
; CC   = nucleic acid (such as DNA or RNA or their known derivatives); Li  =
; CC   covalent linkage between DNA and PNA, i.e. a bond or a residue containing
; CC   at least one atom of carbon, nitrogen, oxygen or sulfur; PNA  = polyamide
; CC   structure containing at least one nucleobase different from thymine; and
; CC   F, F'  = end groups and/or are connected through a covalent bond. The
; CC   products of the invention have anticancer, antiproliferative, antiviral,
; CC   hepatotropic and vasotropic activity and can be used for the inhibition
; CC   of gene expression by antisense, ribozyme, sense, or triple-helix
; CC   methods, or by binding to proteins (aptamers). (I) are used for treating
; CC   diseases caused by viruses (human immune deficiency, herpes simplex,
; CC   influenza, vesicular stomatitis, hepatitis B or papilloma), or mediated
; CC   by integrins or cell-cell adhesion reactions, for treating cancer, or
; CC   for inhibiting restenosis, particularly as antisense reagents. They are
; CC   also useful in heterogeneous or homogeneous assays, as primers or probes,
; CC   particularly where the target is amplified before being detected by
; CC   hybridization, for diagnosis of genetic, malignant or pathogen-related
; CC   diseases. (I) retain the increased affinity for complementary strands and
; CC   better stability in serum, associated with conventional peptide nucleic
; CC   acids (PNA), but lack the disadvantages, i.e. have improved cellular
; CC   uptake, do not aggregate in aqueous solution, and have reduced affinity
; CC   for purification materials, reduced cytotoxicity, better sequence
; CC   specificity. They are more active than either DNA or PNA oligomers. When
; CC   used as probes, (I) show different responses to base-pair mismatches in
; CC   the DNA and PNA segments, allowing better discrimination between
; CC   pathogenic and non pathogenic conditions such as the transition from
; CC   proto-oncogene to oncogene. also, when used as primers, with the PNA
; CC   segment at the 5'-end, they produce amplicons resistant to
; CC   5'-exonuclease, allowing this enzyme to be used to eliminate RNA or DNA
; CC   primers. The DNA component allows additional reactions not possible with
; CC   PNA alone, e.g. 3'-tailing and (I) may be incorporated into a gene.
; CC   AAH49208-AAH49264 represent oligonucleotides used to illustrate the
; CC   method of the invention.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 15 T; 0 other;
;
;   AAH49243  Length: 15  October 16, 2003 08:46  Type: N  Check: 80  ..
aah49243

  Query Match             0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4501 TTTTTTTTTTTTTTT 4515
              |||||||||||||||
Db          1 TTTTTTTTTTTTTTT 15


RESULT 164
aah49243/c
;  TOIG of: aah49243  check: 80  from: 1  to: 15
;
; ID   AAH49243 standard; DNA; 15 BP.
; XX
; AC   AAH49243;
; XX
; DT   26-NOV-2001  (first entry)
; XX
; DE   PNA-forming oligonucleotide #7.
; XX
; KW   Polyamide-oligonucleotide derivative; anticancer; antiproliferative;
; KW   antiviral; hepatotropic; vasotropic; antisense inhibition; ribozyme;
; KW   integrin; cell-cell adhesion; cancer; restenosis; stability; PNA;
```

```
; KW   peptide nucleic acid; ss.
; XX
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   9
; FT                   /*tag= a
; FT                   /mod_base= OTHER
; FT                   /note= "t-but"
; FT   modified_base   15
; FT                   /*tag= b
; FT                   /mod_base= OTHER
; FT                   /note= "t-hex"
; XX
; PN   EP1113021-A2.
; XX
; PD   04-JUL-2001.
; XX
; PF   08-MAR-1995; 2001EP-0104012.
; XX
; PR   14-MAR-1994;   94DE-4408528.
; PR   08-MAR-1995;   95EP-0103332.
; XX
; PA   (AVET ) AVENTIS PHARMA DEUT GMBH.
; XX
; PI   Uhlmann E,  Breipohl G;
; XX
; DR   WPI; 2001-591267/67.
; XX
; PT   New DNA-peptide nucleic acid chimeras, useful e.g. as antisense agents
; PT   for treating e.g. cancer, also as diagnostic probes and primers -
; XX
; PS   Example 26; Page 40; 54pp; German.
; XX
; CC   This invention describes novel polyamide-oligonucleotide derivatives (I)
; CC   and their physiologically acceptable salts of formula
; CC   F((DNA)-Li)_q(PNA-Li)_r(DNA-Li)_s(PNA)_t)_xF' where q, r, s, t  = 0 or 1,
; CC   with the sum of two or more adjacent letters at least 2; x  = 1-20; DNA
; CC   = nucleic acid (such as DNA or RNA or their known derivatives); Li  =
; CC   covalent linkage between DNA and PNA, i.e. a bond or a residue containing
; CC   at least one atom of carbon, nitrogen, oxygen or sulfur; PNA  = polyamide
; CC   structure containing at least one nucleobase different from thymine; and
; CC   F, F'  = end groups and/or are connected through a covalent bond. The
; CC   products of the invention have anticancer, antiproliferative, antiviral,
; CC   hepatotropic and vasotropic activity and can be used for the inhibition
; CC   of gene expression by antisense, ribozyme, sense, or triple-helix
; CC   methods, or by binding to proteins (aptamers). (I) are used for treating
; CC   diseases caused by viruses (human immune deficiency, herpes simplex,
; CC   influenza, vesicular stomatitis, hepatitis B or papilloma), or mediated
; CC   by integrins or cell-cell adhesion reactions, for treating cancer, or
; CC   for inhibiting restenosis, particularly as antisense reagents. They are
; CC   also useful in heterogeneous or homogeneous assays, as primers or probes,
; CC   particularly where the target is amplified before being detected by
; CC   hybridization, for diagnosis of genetic, malignant or pathogen-related
; CC   diseases. (I) retain the increased affinity for complementary strands and
; CC   better stability in serum, associated with conventional peptide nucleic
; CC   acids (PNA), but lack the disadvantages, i.e. have improved cellular
; CC   uptake, do not aggregate in aqueous solution, and have reduced affinity
; CC   for purification materials, reduced cytotoxicity, better sequence
; CC   specificity. They are more active than either DNA or PNA oligomers. When
; CC   used as probes, (I) show different responses to base-pair mismatches in
; CC   the DNA and PNA segments, allowing better discrimination between
; CC   pathogenic and non-pathogenic conditions such as the transition from
; CC   proto-oncogene to oncogene, also, when used as primers, with the PNA
; CC   segment at the 5'-end, they produce amplicons resistant to
; CC   5'-exonuclease, allowing this enzyme to be used to eliminate RNA or DNA
; CC   primers. The DNA component allows additional reactions not possible with
; CC   PNA alone, e.g. 3'-tailing and (I) may be incorporated into a gene.
; CC   AAH49208-AAH49264 represent oligonucleotides used to illustrate the
; CC   method of the invention.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 15 T; 0 other;
;
;  AAH49243  Length: 15  October 16, 2003 08:46  Type: N  Check: 80  ..
aah49243

  Query Match             0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5207 AAAAAAAAAAAAAAA 5221
             |||||||||||||||
Db         15 AAAAAAAAAAAAAAA 1


RESULT 165
aaq79184
;  TOIG of: aaq79184  check: 7800  from: 1  to: 15
;
; ID   AAQ79184 standard; DNA; 15 BP.
; XX
; AC   AAQ79184;
; XX
; DT   25-MAR-2003  (updated)
; DT   21-JUN-1995  (first entry)
; XX
; DE   Nuclease resistant oligonucleotide.
; XX
; KW   Nuclease resistant oligonucleotide; inhibition of gene expression;
; KW   9-methyl-8-acyclo-adenosine; antisense agents; ss.
; XX
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   14
; FT                   /*tag= a
; FT                   /mod_base= OTHER
; FT                   /note= "9-methyl acyclo adenosine"
; XX
; PN   WO9422864-A1.
; XX
; PD   13-OCT-1994.
; XX
; PF   21-MAR-1994;   94WO-US02995.
; XX
; PR   30-MAR-1993;   93US-0040326.
; XX
; PA   (STER ) STERLING WINTHROP INC.
; XX
; PI   Cook PD,  Delecki DJ,  Guinosso C;
; XX
; DR   WPI; 1994-333078/41.
; XX
; PT   New acyclic nucleoside analogues - used to prepare nuclease
; PT   resistant oligo-nucleotide(s) used partic. for inhibiting gene
; PT   expression
; XX
; PS   Example 10; Page 20; 37pp; English.
; XX
; CC   AAQ79182-Q79186 contain one or more 9-methyl-acyclo-adenosines,
; CC   acylic nucleoside analogues which inhibit nuclease degradation.
; CC   The nuclease resistant oligonucleotides can themselves be used
; CC   to inhibit gene expression as antisense agents, in nucleic acid
; CC   sequencing and diagnostic assays.
; CC   (Updated on 25-MAR-2003 to correct PN field.)
; XX
; SQ   Sequence 15 BP; 15 A; 0 C; 0 G; 0 T; 0 other;
;
;  AAQ79184  Length: 15  October 16, 2003 08:46  Type: N  Check: 7800  ..
aaq79184

  Query Match             0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5207 AAAAAAAAAAAAAAA 5221
```

```
              ||||||||||||||||
Db          1 AAAAAAAAAAAAAAA 15


RESULT 166
aaq79184/c
;  TOIG of: aaq79184  check: 7800  from: 1  to: 15
;
; ID   AAQ79184 standard; DNA; 15 BP.
; XX
; AC   AAQ79184;
; XX
; DT   25-MAR-2003  (updated)
; DT   21-JUN-1995  (first entry)
; XX
; DE   Nuclease resistant oligonucleotide.
; XX
; KW   Nuclease resistant oligonucleotide; inhibition of gene expression;
; KW   9-methyl-8-acyclo-adenosine; antisense agents; ss.
; XX
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   14
; FT                   /*tag=  a
; FT                   /mod_base= OTHER
; FT                   /note= "9-methyl-acyclo-adenosine"
; XX
; PN   WO9422864-A1.
; XX
; PD   13-OCT-1994.
; XX
; PF   21-MAR-1994;   94WO-US02995.
; XX
; PR   30-MAR-1993;   93US-0040326.
; XX
; PA   (STER ) STERLING WINTHROP INC.
; XX
; PI   Cook PD,  Delecki DJ,  Guinosso C;
; XX
; DR   WPI; 1994-333078/41.
; XX
; PT   New acyclic nucleoside analogues - used to prepare nuclease
; PT   resistant oligo-nucleotide(s) used partic. for inhibiting gene
; PT   expression
; XX
; PS   Example 10; Page 20; 37pp; English.
; XX
; CC   AAQ79182-Q79186 contain one or more 9-methyl-acyclo-adenosines,
; CC   acylic nucleoside analogues which inhibit nuclease degradation.
; CC   The nuclease resistant oligonucleotides can themselves be used
; CC   to inhibit gene expression as antisense agents, in nucleic acid
; CC   sequencing and diagnostic assays.
; CC   (Updated on 25-MAR-2003 to correct PN field.)
; XX
; SQ   Sequence 15 BP; 15 A; 0 C; 0 G; 0 T; 0 other;
;
;  AAQ79184  Length: 15  October 16, 2003 08:46  Type: N  Check: 7800  ..
aaq79184

  Query Match             0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4501 TTTTTTTTTTTTTTT 4515
              |||||||||||||||
Db         15 TTTTTTTTTTTTTTT 1


RESULT 167
aaq79185
;  TOIG of: aaq79185  check: 7800  from: 1  to: 15
;
; ID   AAQ79185 standard; DNA; 15 BP.
; XX
; AC   AAQ79185;
; XX
; DT   25-MAR-2003  (updated)
; DT   21-JUN-1995  (first entry)
; XX
; DE   Nuclease resistant oligonucleotide.
; XX
; KW   Nuclease resistant oligonucleotide; inhibition of gene expression;
; KW   9-methyl-8-acyclo-adenosine; antisense agents; ss.
; XX
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   13
; FT                   /*tag=  a
; FT                   /mod_base= OTHER
; FT                   /note= "9-methyl-acyclo adenosine"
; XX
; PN   WO9422864-A1.
; XX
; PD   13-OCT-1994.
; XX
; PF   21-MAR-1994;   94WO-US02995.
; XX
; PR   30-MAR-1993;   93US-0040326.
; XX
; PA   (STER ) STERLING WINTHROP INC.
; XX
; PI   Cook PD,  Delecki DJ,  Guinosso C;
; XX
; DR   WPI; 1994-333078/41.
; XX
; PT   New acyclic nucleoside analogues - used to prepare nuclease
; PT   resistant oligo-nucleotide(s) used partic. for inhibiting gene
; PT   expression
; XX
; PS   Example 11; Page 20; 37pp; English.
; XX
; CC   AAQ79182-Q79186 contain one or more 9-methyl-acyclo-adenosines,
; CC   acylic nucleoside analogues which inhibit nuclease degradation.
; CC   The nuclease resistant oligonucleotides can themselves be used
; CC   to inhibit gene expression as antisense agents, in nucleic acid
; CC   sequencing and diagnostic assays.
; CC   (Updated on 25-MAR-2003 to correct PN field.)
; XX
; SQ   Sequence 15 BP; 15 A; 0 C; 0 G; 0 T; 0 other;
;
;  AAQ79185  Length: 15  October 16, 2003 08:46  Type: N  Check: 7800  ..
aaq79185

  Query Match             0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5207 AAAAAAAAAAAAAAA 5221
              |||||||||||||||
Db          1 AAAAAAAAAAAAAAA 15


RESULT 168
aaq79185/c
;  TOIG of: aaq79185  check: 7800  from: 1  to: 15
;
; ID   AAQ79185 standard; DNA; 15 BP.
; XX
; AC   AAQ79185;
; XX
; DT   25-MAR-2003  (updated)
; DT   21-JUN-1995  (first entry)
; XX
; DE   Nuclease resistant oligonucleotide.
```

```
; XX
; KW   Nuclease resistant oligonucleotide; inhibition of gene expression;
; KW   9-methyl-8-acyclo-adenosine; antisense agents; ss.
; XX
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   13
; FT                   /*tag= a
; FT                   /mod_base= OTHER
; FT                   /note= "9-methyl-acyclo-adenosine"
; XX
; PN   WO9422864-A1.
; XX
; PD   13-OCT-1994.
; XX
; PF   21-MAR-1994;   94WO-US02995.
; XX
; PR   30-MAR-1993;   93US-0040326.
; XX
; PA   (STER ) STERLING WINTHROP INC.
; XX
; PI   Cook PD,  Delecki DJ,  Guinosso C;
; XX
; DR   WPI; 1994-333078/41.
; XX
; PT   New acyclic nucleoside analogues - used to prepare nuclease
; PT   resistant oligo-nucleotide(s) used partic. for inhibiting gene
; PT   expression
; XX
; PS   Example 11; Page 20; 37pp; English.
; XX
; CC   AAQ79182-Q79186 contain one or more 9-methyl-acyclo-adenosines,
; CC   acylic nucleoside analogues which inhibit nuclease degradation.
; CC   The nuclease resistant oligonucleotides can themselves be used
; CC   to inhibit gene expression as antisense agents, in nucleic acid
; CC   sequencing and diagnostic assays.
; CC   (Updated on 25-MAR-2003 to correct PN field.)
; XX
; SQ   Sequence 15 BP; 15 A; 0 C; 0 G; 0 T; 0 other;
;
;  AAQ79185  Length: 15  October 16, 2003 08:46  Type: N  Check: 7800  ..
aaq79185

  Query Match             0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4501 TTTTTTTTTTTTTTT 4515
              |||||||||||||||
Db         15 TTTTTTTTTTTTTTT 1


RESULT 169
aat86605
;  TOIG of: aat86605  check: 80  from: 1  to: 15
;
; ID   AAT86605 standard; DNA; 15 BP.
; XX
; AC   AAT86605;
; XX
; DT   04-JUN-1998  (first entry)
; XX
; DE   Oligonucleotide separated by capillary affinity gel electrophoresis.
; XX
; KW   Capillary afinity gel electrophoresis; separation; polymer-gel;
; KW   polyacrylamide; ss.
; XX
; OS   Synthetic.
; XX
; PN   WO9745721-A1.
; XX
; PD   04-DEC-1997.
; XX
; PF   23-MAY-1997;   97WO-EP02647.
; XX
; PR   24-MAY-1996;   96CH-0001320.
; XX
; PA   (NOVS ) NOVARTIS AG.
; XX
; PI   Muscate A,  Natt F,  Paulus A;
; XX
; DR   WPI; 1998-041763/04.
; XX
; PT   Separation of electrically charged target molecules - by capillary
; PT   affinity gel electrophoresis using polymer-gel to which receptors
; PT   for target molecules are bound
; XX
; PS   Example D3; Page 25; 41pp; English.
; XX
; CC   A mixture of oligonucleotides (AAT86604-7) were separated by a new
; CC   process using capillary affinity gel electrophoresis. The invention
; CC   relates to selective separation of electrically charged target molecules
; CC   in an analytical mixture. It comprises capillary affinity gel
; CC   electrophoresis using a capillary tube which is at least partly filled
; CC   with a polymer gel. Receptors for target molecules are covalently bound
; CC   to the polymer. An electric field of at least 50 volts/cm is applied.
; CC   The capillary tube is charged with the analytical mixture. In a first
; CC   separation stage, the target molecules in the mixture are bound to the
; CC   receptors and the remaining components are eluted, optionally whilst
; CC   splitting open. In a second stage, the elution conditions are changed,
; CC   optionally in stages, so that the affinity of the target molecules for
; CC   the receptor is eliminated and the target molecules are eluted and
; CC   detected, optionally whilst splitting open. The process is useful for
; CC   selective separation and/or determination of charged organic compounds,
; CC   such as oligonucleotides, peptides or carbohydrates. It may be used,
; CC   e.g. for isolation of specific proteins and DNA molecules, purification
; CC   of antibodies, analysis of antisense compounds or screening for enzyme
; CC   inhibitors. The process achieves higher resolution and selectivity
; CC   than prior art processes, especially in the case of complex biological
; CC   analytical mixtures. It has high sensitivity, even with small amounts of
; CC   samples. The derivatised polymers may be synthesised specifically using
; CC   standard methods.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 15 T; 0 other;
;
;  AAT86605  Length: 15  October 16, 2003 08:46  Type: N  Check: 80  ..
aat86605

  Query Match             0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4501 TTTTTTTTTTTTTTT 4515
              |||||||||||||||
Db          1 TTTTTTTTTTTTTTT 15


RESULT 170
aat86605/c
;  TOIG of: aat86605  check: 80  from: 1  to: 15
;
; ID   AAT86605 standard; DNA; 15 BP.
; XX
; AC   AAT86605;
; XX
; DT   04-JUN-1998  (first entry)
; XX
; DE   Oligonucleotide separated by capillary affinity gel electrophoresis.
; XX
; KW   Capillary afinity gel electrophoresis; separation; polymer-gel;
; KW   polyacrylamide; ss.
; XX
; OS   Synthetic.
; XX
; PN   WO9745721-A1.
```

```
; XX
; PD   04-DEC-1997.
; XX
; PF   23-MAY-1997;   97WO-EP02647.
; XX
; PR   24-MAY-1996;   96CH-0001320.
; XX
; PA   (NOVS ) NOVARTIS AG.
; XX
; PI   Muscate A,  Natt F,  Paulus A;
; XX
; DR   WPI; 1998-041763/04.
; XX
; PT   Separation of electrically charged target molecules - by capillary
; PT   affinity gel electrophoresis using polymer-gel to which receptors
; PT   for target molecules are bound
; XX
; PS   Example D3; Page 25; 41pp; English.
; XX
; CC   A mixture of oligonucleotides (AAT86604-7) were separated by a new
; CC   process using capillary affinity gel electrophoresis. The invention
; CC   relates to selective separation of electrically charged target molecules
; CC   in an analytical mixture. It comprises capillary affinity gel
; CC   electrophoresis using a capillary tube which is at least partly filled
; CC   with a polymer gel. Receptors for target molecules are covalently bound
; CC   to the polymer. An electric field of at least 50 volts/cm is applied.
; CC   The capillary tube is charged with the analytical mixture. In a first
; CC   separation stage, the target molecules in the mixture are bound to the
; CC   receptors and the remaining components are eluted, optionally whilst
; CC   splitting open. In a second stage, the elution conditions are changed,
; CC   optionally in stages, so that the affinity of the target molecules for
; CC   the receptor is eliminated and the target molecules are eluted and
; CC   detected, optionally whilst splitting open. The process is useful for
; CC   selective separation and/or determination of charged organic compounds,
; CC   such as oligonucleotides, peptides or carbohydrates. It may be used,
; CC   e.g. for isolation of specific proteins and DNA molecules, purification
; CC   of antibodies, analysis of antisense compounds or screening for enzyme
; CC   inhibitors. The process achieves higher resolution and selectivity
; CC   than prior art processes, especially in the case of complex biological
; CC   analytical mixtures. It has high sensitivity, even with small amounts of
; CC   samples. The derivatised polymers may be synthesised specifically using
; CC   standard methods.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 15 T; 0 other;
;
;   AAT86605  Length: 15  October 16, 2003 08:46  Type: N  Check: 80  ..
aat86605

  Query Match             0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5207 AAAAAAAAAAAAAAA 5221
              |||||||||||||||
Db         15 AAAAAAAAAAAAAAA 1


RESULT 171
aat86675
;  TOIG of: aat86675  check: 80  from: 1  to: 15
;
; ID   AAT86675 standard; DNA; 15 BP.
; XX
; AC   AAT86675;
; XX
; DT   04-JUN-1998  (first entry)
; XX
; DE   Oligonucleotide linked to polyacrylamide.
; XX
; KW   Capillary afinity gel electrophoresis; separation; polymer-gel;
; KW   polyacrylamide; ss.
; XX
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1
; FT                   /*tag=  a
; FT                   /note= "Thymine at 5' end attached to a polyacrylamide
; FT                          gel via a linking group"
; XX
; PN   WO9745721-A1.
; XX
; PD   04-DEC-1997.
; XX
; PF   23-MAY-1997;   97WO-EP02647.
; XX
; PR   24-MAY-1996;   96CH-0001320.
; XX
; PA   (NOVS ) NOVARTIS AG.
; XX
; PI   Muscate A,  Natt F,  Paulus A;
; XX
; DR   WPI; 1998-041763/04.
; XX
; PT   Separation of electrically charged target molecules - by capillary
; PT   affinity gel electrophoresis using polymer-gel to which receptors
; PT   for target molecules are bound
; XX
; PS   Example A1; Page 22; 41pp; English.
; XX
; CC   This sequence represents an oligonucleotide receptor molecule covalently
; CC   bound to a polyacrylamide gel via a linking group. The invention relates
; CC   to selective separation of electrically charged target molecules in an
; CC   analytical mixture. It comprises capillary affinity gel electrophoresis
; CC   using a capillary tube which is at least partly filled with a polymer
; CC   gel. Receptors for target molecules are covalently bound to the
; CC   polymer. An electric field of at least 50 volts/cm is applied. The
; CC   capillary tube is charged with the analytical mixture. In a first
; CC   separation stage, the target molecules in the mixture are bound to the
; CC   receptors and the remaining components are eluted, optionally whilst
; CC   splitting open. In a second stage, the elution conditions are changed,
; CC   optionally in stages, so that the affinity of the target molecules for
; CC   the receptor is eliminated and the target molecules are eluted and
; CC   detected, optionally whilst splitting open. The process is useful for
; CC   selective separation and/or determination of charged organic compounds,
; CC   such as oligonucleotides, peptides or carbohydrates. It may be used,
; CC   e.g. for isolation of specific proteins and DNA molecules, purification
; CC   of antibodies, analysis of antisense compounds or screening for enzyme
; CC   inhibitors. The process achieves higher resolution and selectivity
; CC   than prior art processes, especially in the case of complex biological
; CC   analytical mixtures. It has high sensitivity, even with small amounts of
; CC   samples. The derivatised polymers may be synthesised specifically using
; CC   standard methods.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 15 T; 0 other;
;
;   AAT86675  Length: 15  October 16, 2003 08:46  Type: N  Check: 80  ..
aat86675

  Query Match             0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4501 TTTTTTTTTTTTTTT 4515
              |||||||||||||||
Db          1 TTTTTTTTTTTTTTT 15


RESULT 172
aat86675/c
;  TOIG of: aat86675  check: 80  from: 1  to: 15
;
; ID   AAT86675 standard; DNA; 15 BP.
; XX
; AC   AAT86675;
; XX
```

```
; DT   04-JUN-1998  (first entry)
; XX
; DE   Oligonucleotide linked to polyacrylamide.
; XX
; KW   Capillary afinity gel electrophoresis; separation; polymer-gel;
; KW   polyacrylamide; ss.
; XX
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1
; FT                   /*tag=  a
; FT                   /note= "Thymine at 5' end attached to a polyacrylamide
; FT                          gel via a linking group"
; XX
; PN   WO9745721-A1.
; XX
; PD   04-DEC-1997.
; XX
; PF   23-MAY-1997;   97WO-EP02647.
; XX
; PR   24-MAY-1996;   96CH-0001320.
; XX
; PA   (NOVS ) NOVARTIS AG.
; XX
; PI   Muscate A,  Natt F,  Paulus A;
; XX
; DR   WPI; 1998-041763/04.
; XX
; PT   Separation of electrically charged target molecules - by capillary
; PT   affinity gel electrophoresis using polymer-gel to which receptors
; PT   for target molecules are bound
; XX
; PS   Example A1; Page 22; 41pp; English.
; XX
; CC   This sequence represents an oligonucleotide receptor molecule covalently
; CC   bound to a polyacrylamide gel via a linking group. The invention relates
; CC   to selective separation of electrically charged target molecules in an
; CC   analytical mixture. It comprises capillary affinity gel electrophoresis
; CC   using a capillary tube which is at least partly filled with a polymer
; CC   gel. Receptors for target molecules are covalently bound to the
; CC   polymer. An electric field of at least 50 volts/cm is applied. The
; CC   capillary tube is charged with the analytical mixture. In a first
; CC   separation stage, the target molecules in the mixture are bound to the
; CC   receptors and the remaining components are eluted, optionally whilst
; CC   splitting open. In a second stage, the elution conditions are changed,
; CC   optionally in stages, so that the affinity of the target molecules for
; CC   the receptor is eliminated and the target molecules are eluted and
; CC   detected, optionally whilst splitting open. The process is useful for
; CC   selective separation and/or determination of charged organic compounds,
; CC   such as oligonucleotides, peptides or carbohydrates. It may be used,
; CC   e.g. for isolation of specific proteins and DNA molecules, purification
; CC   of antibodies, analysis of antisense compounds or screening for enzyme
; CC   inhibitors. The process achieves higher resolution and selectivity
; CC   than prior art processes, especially in the case of complex biological
; CC   analytical mixtures. It has high sensitivity, even with small amounts of
; CC   samples. The derivatised polymers may be synthesised specifically using
; CC   standard methods.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 15 T; 0 other;
;
;   AAT86675  Length: 15  October 16, 2003 08:46  Type: N  Check: 80  ..
aat86675

  Query Match             0.3%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5207 AAAAAAAAAAAAAAA 5221
              |||||||||||||||
Db         15 AAAAAAAAAAAAAAA 1
```

```
RESULT 173
aax65144/c
;  TOIG of: aax65144  check: 8838  from: 1  to: 15
;
; ID   AAX65144 standard; RNA; 15 BP.
; XX
; AC   AAX65144;
; XX
; DT   20-JUL-1999  (first entry)
; XX
; DE   Mouse B7-1 hammerhead ribozyme target SEQ ID NO:1776.
; XX
; KW   Arthritic condition; graft tolerance; immune response; target; cleavage;
; KW   hammerhead ribozyme; hairpin ribozyme; human; rabbit; mouse; collagenase;
; KW   stromelysin; synovial membrane; joint; arthritis; osteoarthritis;
; KW   rheumatoid arthritis; autoimmune disease; allergy; inflammation;
; KW   diagnosis; ss.
; XX
; OS   Mus sp.
; XX
; PN   WO9618736-A2.
; XX
; PD   20-JUN-1996.
; XX
; PF   22-NOV-1995;   95WO-US15516.
; XX
; PR   05-OCT-1995;   95US-0541365.
; PR   13-DEC-1994;   94US-0354920.
; PR   23-DEC-1994;   94US-0363253.
; PR   23-DEC-1994;   94US-0363254
; PR   17-FEB-1995;   95US-0390850.
; PR   20-APR-1995;   95US-0426124.
; PR   02-MAY-1995;   95US-0432874.
; PR   04-MAY-1995;   95US-0434509.
; PR   07-JUL-1995;   95US-0000951.
; PR   07-JUL-1995;   95US-0000974.
; PR   07-AUG-1995;   95US-0512861.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC.
; XX
; PI   Draper K,  Gustofson J,  McSwiggen J,  Pavco P,  Stinchcomb DT;
; PI   Beigelman L,  Karpeisky A,  Modak A,  Usman N,  Burgin A;
; PI   Matulic-Adamic J,  Jarvis T,  Thompson JD,  Wincott F;
; XX
; DR   WPI; 1996-300653/30.
; XX
; PT   Enzymatic nucleic acid molecules having a hammer-head motif - used
; PT   for the treatment of arthritis, induction of graft tolerance or
; PT   treatment of auto immune diseases
; XX
; PS   Claim 10; Page 177; 307pp; English.
; XX
; CC   The present invention describes a novel enzymatic nucleic acid (ENA)
; CC   having a hammerhead motif (HM) comprising: (i) at least 5 ribose
; CC   residues; (ii) a 2'-C-allyl modification at position 4 of the ENA; (iii)
; CC   at least ten 2'-O-methyl modifications; and (iv) a 3'-end modification.
; CC   The ENA's can inhibit collagenase and stromelysin production in the
; CC   synovial membrane of joints for the treatment or prevention of arthritis,
; CC   particularly osteoarthritis or rheumatoid arthritis. The ENA's can also
; CC   be used to treat antigen presenting cells of a donor to induce tolerance
; CC   in a recipient to an alloantigen of a donor. They can also be used for
; CC   enhancing graft tolerance or for treating autoimmune disease, and for
; CC   treating allergies and other inflammatory conditions. The ENA's can also
; CC   be used in diagnosis. Ribozyme therapy impacts on the expression of
; CC   stromelysin without introducing the non-specific effects upon gene
; CC   expression which accompany treatment with retinoids and dexamethasone.
; CC   The concentration of ribozyme required to affect a therapeutic treatment
; CC   is lower than that required of antisense molecules, and is highly
; CC   specific. The present sequence is used in the exemplification of the
; CC   present invention.
; XX
; SQ   Sequence 15 BP; 4 A; 4 C; 1 G; 6 U; 0 other;
;
```

```
; AAX65144 Length: 15 October 16, 2003 08:46 Type: N Check: 8838 ..
aax65144

  Query Match              0.3%; Score 15; DB 1; Length 15;
  Best Local Similarity   100.0%; Pred. No. 0;
  Matches   15; Conservative    0; Mismatches    0; Indels    0; Gaps    0;

Qy       1404 GATGCTAAAGATGAT 1418
              |||||||||||||||
Db         15 GATGCTAAAGATGAT 1

RESULT 174
aba97403
; TOIG of: aba97403 check: 80 from: 1 to: 15
;
; ID   ABA97403 standard; DNA; 15 BP.
; XX
; AC   ABA97403;
; XX
; DT   18-JUN-2002 (first entry)
; XX
; DE   Nucleotide sequence of oligomer # 10 used to compare mismatches.
; XX
; KW   Protein nucleic acid molecule; PNA; ds.
; XX
; OS   Synthetic.
; XX
; PN   WO200168673-A1.
; XX
; PD   20-SEP-2001.
; XX
; PF   13-MAR-2001; 2001WO-US08111.
; XX
; PR   14-MAR-2000; 2000US-189190P.
; PR   30-NOV-2000; 2000US-250334P.
; XX
; PA   (ACTI-) ACTIVE MOTIF.
; XX
; PI   Efimov V, Fernandez J, Archdeacon D, Archdeacon J;
; PI   Chakhmakhcheau O, Buryakova A, Choob M, Honderp K;
; XX
; DR   WPI; 2002-041177/05.
; XX
; PT   Oligonucleotides analogues useful in detection, separation and
; PT   purification of nucleic acid molecules, comprise monomers, dimers and
; PT   oligomers -
; XX
; PS   Example 20; Page 123; 197pp; English.
; XX
; CC   This invention relates to oligonucleotide analogues comprising a protein
; CC   nucleic acid molecule (PNA) monomer. They are used in the detection and
; CC   separation of nucleic acid molecules and as probes, primers, linkers,
; CC   adapters and antisense agents on solid supports. Modifications enhance
; CC   their use as capture and detection probes e.g. by the incorporation of
; CC   biotin, digoxigenen, radioisotopes, fluorescent labels such as
; CC   fluorescein and reporter molecules such as alkaline phosphatase.
; CC   They are also used for enhancing or inhibiting the activity of an enzyme
; CC   or cellular activity. The compounds are stable to nucleases and
; CC   proteases, have high affinity, binding specificity and solubility. The
; CC   polyamide backbone of PNAs is resistant to both nucleases and proteases.
; CC   PNAs bind nucleic acid molecules with greater affinity than DNA or RNA
; CC   concentration. The compounds are relatively simple to synthesize and
; CC   are used in a wide variety of applications. This sequence
; CC   represents a DNA oligomer which is used to represent the effect of
; CC   single base mismatches on oligonucleotides.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 15 T; 0 other;
;
;  ABA97403 Length: 15 October 16, 2003 08:46 Type: N Check: 80 ..
aba97403

  Query Match              0.3%; Score 15; DB 1; Length 15;
  Best Local Similarity   100.0%; Pred. No. 0;
  Matches   15; Conservative    0; Mismatches    0; Indels    0; Gaps    0;

Qy       4501 TTTTTTTTTTTTTTT 4515
              |||||||||||||||
Db          1 TTTTTTTTTTTTTTT 15

RESULT 175
aba97403/c
; TOIG of: aba97403 check: 80 from: 1 to: 15
;
; ID   ABA97403 standard; DNA; 15 BP.
; XX
; AC   ABA97403;
; XX
; DT   18-JUN-2002 (first entry)
; XX
; DE   Nucleotide sequence of oligomer # 10 used to compare mismatches.
; XX
; KW   Protein nucleic acid molecule; PNA; ds.
; XX
; OS   Synthetic.
; XX
; PN   WO200168673-A1.
; XX
; PD   20-SEP-2001.
; XX
; PF   13-MAR-2001; 2001WO-US08111.
; XX
; PR   14-MAR-2000; 2000US-189190P.
; PR   30-NOV-2000; 2000US-250334P.
; XX
; PA   (ACTI-) ACTIVE MOTIF.
; XX
; PI   Efimov V, Fernandez J, Archdeacon D, Archdeacon J;
; PI   Chakhmakhcheau O, Buryakova A, Choob M, Honderp K;
; XX
; DR   WPI; 2002-041177/05.
; XX
; PT   Oligonucleotides analogues useful in detection, separation and
; PT   purification of nucleic acid molecules, comprise monomers, dimers and
; PT   oligomers -
; XX
; PS   Example 20; Page 123; 197pp; English.
; XX
; CC   This invention relates to oligonucleotide analogues comprising a protein
; CC   nucleic acid molecule (PNA) monomer. They are used in the detection and
; CC   separation of nucleic acid molecules and as probes, primers, linkers,
; CC   adapters and antisense agents on solid supports. Modifications enhance
; CC   their use as capture and detection probes e.g. by the incorporation of
; CC   biotin, digoxigenen, radioisotopes, fluorescent labels such as
; CC   fluorescein and reporter molecules such as alkaline phosphatase.
; CC   They are also used for enhancing or inhibiting the activity of an enzyme
; CC   or cellular activity. The compounds are stable to nucleases and
; CC   proteases, have high affinity, binding specificity and solubility. The
; CC   polyamide backbone of PNAs is resistant to both nucleases and proteases.
; CC   PNAs bind nucleic acid molecules with greater affinity than DNA or RNA
; CC   concentration. The compounds are relatively simple to synthesize and
; CC   are used in a wide variety of applications. This sequence
; CC   represents a DNA oligomer which is used to represent the effect of
; CC   single base mismatches on oligonucleotides.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 0 G; 15 T; 0 other;
;
;  ABA97403 Length: 15 October 16, 2003 08:46 Type: N Check: 80 ..
aba97403

  Query Match              0.3%; Score 15; DB 1; Length 15;
  Best Local Similarity   100.0%; Pred. No. 0;
  Matches   15; Conservative    0; Mismatches    0; Indels    0; Gaps    0;

Qy       5207 AAAAAAAAAAAAAAA 5221
```

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              ||||||||||||||||
Db         15 AAAAAAAAAAAAAAAA 1


RESULT 176
aba97402
;  TOIG of: aba97402  check: 1424  from: 1  to: 16
;
; ID   ABA97402 standard; DNA; 16 BP.
; XX
; AC   ABA97402;
; XX
; DT   18-JUN-2002  (first entry)
; XX
; DE   Nucleotide sequence of oligomer # 1 used to test thermal stability.
; XX
; KW   Protein nucleic acid molecule; PNA; ds.
; XX
; OS   Synthetic.
; XX
; PN   WO200168673-A1.
; XX
; PD   20-SEP-2001.
; XX
; PF   13-MAR-2001; 2001WO-US08111.
; XX
; PR   14-MAR-2000; 2000US-189190P.
; PR   30-NOV-2000; 2000US-250334P.
; XX
; PA   (ACTI-) ACTIVE MOTIF.
; XX
; PI   Efimov V,  Fernandez J,  Archdeacon D,  Archdeacon J;
; PI   Chakhmakhcheau O,  Buryakova A,  Choob M,  Hondorp K;
; XX
; DR   WPI; 2002-041177/05.
; XX
; PT   Oligonucleotides analogues useful in detection, separation and
; PT   purification of nucleic acid molecules, comprise monomers, dimers and
; PT   oligomers -
; XX
; PS   Example 17; Page 118; 197pp; English.
; XX
; CC   This invention relates to oligonucleotide analogues comprising a protein
; CC   nucleic acid molecule (PNA) monomer. They are used in the detection and
; CC   separation of nucleic acid molecules and as probes, primers, linkers,
; CC   adapters and antisense agents on solid supports. Modifications enhance
; CC   their use as capture and detection probes e.g. by the incorporation of
; CC   biotin, digoxigenen, radioisotopes, fluorescent labels such as
; CC   fluorescein and reporter molecules such as alkaline phosphatase.
; CC   They are also used for enhancing or inhibiting the activity of an enzyme
; CC   or cellular activity. The compounds are stable to nucleases and
; CC   proteases, have high affinity, binding specificity and solubility. The
; CC   polyamide backbone of PNAs is resistant to both nucleases and proteases.
; CC   PNAs bind nucleic acid molecules with greater affinity than DNA or RNA
; CC   concentration. The compounds are relatively simple to synthesize and
; CC   are used in a wide variety of applications. This sequence
; CC   represents a DNA oligomer which is used to represent the thermal
; CC   stability of the oligomers of the invention.
; XX
; SQ   Sequence 16 BP; 0 A; 0 C; 0 G; 16 T; 0 other;
;
;  ABA97402  Length: 16  October 16, 2003 08:46  Type: N  Check: 1424  ..
aba97402

  Query Match             0.3%;  Score 15;  DB 1;  Length 16;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4501 TTTTTTTTTTTTTTT 4515
              |||||||||||||||
Db          1 TTTTTTTTTTTTTTT 15


RESULT 177
aba97402/c
;  TOIG of: aba97402  check: 1424  from: 1  to: 16
;
; ID   ABA97402 standard; DNA; 16 BP.
; XX
; AC   ABA97402;
; XX
; DT   18-JUN-2002  (first entry)
; XX
; DE   Nucleotide sequence of oligomer # 1 used to test thermal stability.
; XX
; KW   Protein nucleic acid molecule; PNA; ds.
; XX
; OS   Synthetic.
; XX
; PN   WO200168673-A1.
; XX
; PD   20-SEP-2001.
; XX
; PF   13-MAR-2001; 2001WO-US08111.
; XX
; PR   14-MAR-2000; 2000US-189190P.
; PR   30-NOV-2000; 2000US-250334P.
; XX
; PA   (ACTI-) ACTIVE MOTIF.
; XX
; PI   Efimov V,  Fernandez J,  Archdeacon D,  Archdeacon J;
; PI   Chakhmakhcheau O,  Buryakova A,  Choob M,  Hondorp K;
; XX
; DR   WPI; 2002-041177/05.
; XX
; PT   Oligonucleotides analogues useful in detection, separation and
; PT   purification of nucleic acid molecules, comprise monomers, dimers and
; PT   oligomers -
; XX
; PS   Example 17; Page 118; 197pp; English.
; XX
; CC   This invention relates to oligonucleotide analogues comprising a protein
; CC   nucleic acid molecule (PNA) monomer. They are used in the detection and
; CC   separation of nucleic acid molecules and as probes, primers, linkers,
; CC   adapters and antisense agents on solid supports. Modifications enhance
; CC   their use as capture and detection probes e.g. by the incorporation of
; CC   biotin, digoxigenen, radioisotopes, fluorescent labels such as
; CC   fluorescein and reporter molecules such as alkaline phosphatase.
; CC   They are also used for enhancing or inhibiting the activity of an enzyme
; CC   or cellular activity. The compounds are stable to nucleases and
; CC   proteases, have high affinity, binding specificity and solubility. The
; CC   polyamide backbone of PNAs is resistant to both nucleases and proteases.
; CC   PNAs bind nucleic acid molecules with greater affinity than DNA or RNA
; CC   concentration. The compounds are relatively simple to synthesize and
; CC   are used in a wide variety of applications. This sequence
; CC   represents a DNA oligomer which is used to represent the thermal
; CC   stability of the oligomers of the invention.
; XX
; SQ   Sequence 16 BP; 0 A; 0 C; 0 G; 16 T; 0 other;
;
;  ABA97402  Length: 16  October 16, 2003 08:46  Type: N  Check: 1424  ..
aba97402

  Query Match             0.3%;  Score 15;  DB 1;  Length 16;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5207 AAAAAAAAAAAAAAA 5221
              |||||||||||||||
Db         16 AAAAAAAAAAAAAAA 2


RESULT 178
abk87931
;  TOIG of: abk87931  check: 1120  from: 1  to: 16
;
```

```
; ID   ABK87931 standard; DNA; 16 BP.
; XX
; AC   ABK87931;
; XX
; DT   07-OCT-2002  (first entry)
; XX
; DE   Anchored oligo-dT primer, H-T11G, used for differential display.
; XX
; KW   Human; PCR; primer; H-T11G; ss; CC214; cervical cancer 2; HCCR-2;
; KW   protooncogene; cytostatic; tumourigenesis; cervical cancer; cancer;
; KW   leukaemia; lymphoma; antisense; gene therapy; carcinogen; anticancer;
; KW   antioxidant.
; XX
; OS   Synthetic.
; XX
; PN   WO200244370-A1.
; XX
; PD   06-JUN-2002.
; XX
; PF   09-JUL-2001; 2001WO-KR01172.
; XX
; PR   28-NOV-2000; 2000KR-0071202.
; XX
; PA   (KIMJ/) KIM J W.
; XX
; PI   Kim JW;
; XX
; DR   WPI; 2002-557542/59.
; XX
; PT   Novel human cervical cancer 2 protooncogene protein and polynucleotide
; PT   encoding it useful for diagnosing various cancers e.g. leukemia,
; PT   lymphoma or uterine cervix cancer, and for producing transformed
; PT   animals -
; XX
; PS   Disclosure; Page 47; 49pp; English.
; XX
; CC   The invention discloses a human cervical cancer 2 (HCCR-2) protooncogene
; CC   and encoded protein. The protooncogene was discovered using mRNA
; CC   differential display, identifying it as being amplified in cancer cells
; CC   and, more specifically, involved in the tumourigenesis of cervical
; CC   cancer. HCCR-2 is useful for preventing, diagnosing or treating cancer,
; CC   including leukaemia, lymphoma, colon, breast, kidney, stomach, lung,
; CC   ovary or uterine cervix cancer. HCCR-2 is also useful for producing
; CC   antibodies which are useful as diagnostic tools. HCCR-2 protooncogene is
; CC   useful in the diagnosis of various cancers, in antisense gene therapy
; CC   and for producing transformed animals which are useful in screening for
; CC   carcinogens or anticancer agents, such as antioxidants. The protooncogene
; CC   is also useful for establishing a continuous viable cancer cell line
; CC   which is useful in searching for anticancer agents. The sequence
; CC   presented is the anchored oligo-dT primer, H-T11G, which was used to
; CC   amplify cDNA for differential display. This technique identified a cDNA
; CC   fragment, designated CC214, which was then used as a probe to isolate the
; CC   full length cDNA (cervical cancer 2 (HCCR-2) protooncogene) from a human
; CC   lung embryonic fibroblast cDNA library.
; XX
; SQ   Sequence 16 BP; 2 A; 0 C; 2 G; 12 T; 0 other;
;
;  ABK87931  Length: 16  October 16, 2003 08:46  Type: N  Check: 1120  ..
abk87931

  Query Match             0.3%;  Score 15;  DB 1;  Length 16;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4498 AAGTTTTTTTTTTTT 4512
              |||||||||||||||
Db          1 AAGTTTTTTTTTTTT 15


RESULT 179
aaa25448/c
;  TOIG of: aaa25448  check: 2807  from: 1  to: 17
;
```

```
; ID   AAA25448 standard; DNA; 17 BP.
; XX
; AC   AAA25448;
; XX
; DT   19-JUL-2000  (first entry)
; XX
; DE   Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1946.
; XX
; KW   Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
; KW   hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
; KW   gene expression modification; cancer; phosphorothioate; endonuclease;
; KW   anticancer; breast cancer; endometrium cancer; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO9954459-A2.
; XX
; PD   28-OCT-1999.
; XX
; PF   19-APR-1999;   99WO-US08547.
; XX
; PR   20-APR-1998;   98US-0082404.
; PR   23-JUN-1998;   98US-0103636.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC.
; XX
; PI   Thompson JD, Beigelman L, McSwiggen JA, Karpeisky A, Bellon L;
; PI   Reynolds M, Zwick M, Jarvis T, Woolf T, Haeberli P;
; PI   Matulic-Adamic J;
; XX
; DR   WPI; 2000-013248/01.
; XX
; PT   New nucleic acids that interact, and optionally cleave, target
; PT   sequences, used to treat cancer
; XX
; PS   Claim 77; Page 79; 148pp; English.
; XX
; CC   The present invention describes nucleic acids (A) that interact stably
; CC   with a target sequence and contain at least one phosphoro(di)thioate
; CC   link, having endonuclease activity. (A), and more generally any
; CC   catalytic nucleic acid (A') that modulates expression of the oestrogen
; CC   receptor gene, are used to treat cancer (particularly of breast or
; CC   endometrium), in vivo or by transforming cells ex vivo and implanting
; CC   treated cells, or for other conditions associated with levels of
; CC   oestrogen receptor. Because of the high selectivity for targeted RNA, (A)
; CC   can also be used to correlate inhibition of gene expression with
; CC   alterations in phenotype, particularly for identification of therapeutic
; CC   targets, and as research reagents (for RNA, in the  same way that
; CC   restriction endonucleases are used with DNA). The combination of
; CC   modifications in (A) improves resistance to nucleases, binding affinity
; CC   and/or activity. AAA23503 to AAA24747 represent oestrogen receptor
; CC   hammerhead ribozyme sequences, and AAA24748 to AAA25992 represent their
; CC   corresponding target sequences. AAA25993 to AAA26105 represent oestrogen
; CC   receptor hairpin ribozyme sequences, and AAA26107 to AAA26218 represent
; CC   their corresponding target sequences. AAA26219 to AAA26271 represent
; CC   other ribozyme sequences and antisense oligonucleotides used in the
; CC   exemplification of the present invention.
; XX
; SQ   Sequence 17 BP; 1 A; 0 C; 1 G; 15 T; 0 other;
;
;  AAA25448  Length: 17  October 16, 2003 08:46  Type: N  Check: 2807  ..
aaa25448

  Query Match             0.3%;  Score 15;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5207 AAAAAAAAAAAAAAA 5221
              |||||||||||||||
Db         17 AAAAAAAAAAAAAAA 3


RESULT 180
```

```
aaa25449/c
;  TOIG of: aaa25449  check: 2839  from: 1  to: 17
;
; ID   AAA25449 standard; DNA; 17 BP.
; XX
; AC   AAA25449;
; XX
; DT   19-JUL-2000  (first entry)
; XX
; DE   Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1947.
; XX
; KW   Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
; KW   hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
; KW   gene expression modification; cancer; phosphorothioate; endonuclease;
; KW   anticancer; breast cancer; endometrium cancer; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO9954459-A2.
; XX
; PD   28-OCT-1999.
; XX
; PF   19-APR-1999;   99WO-US08547.
; XX
; PR   20-APR-1998;   98US-0082404.
; PR   23-JUN-1998;   98US-0103636.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC.
; XX
; PI   Thompson JD,  Beigelman L,  McSwiggen JA,  Karpeisky A,  Bellon L;
; PI   Reynolds M,  Zwick M,  Jarvis T,  Woolf T,  Haeberli P;
; PI   Matulic-Adamic J;
; XX
; DR   WPI; 2000-013248/01.
; XX
; PT   New nucleic acids that interact, and optionally cleave, target
; PT   sequences, used to treat cancer  -
; XX
; PS   Claim 77; Page 79; 148pp; English.
; XX
; CC   The present invention describes nucleic acids (A) that interact stably
; CC   with a target sequence and contain at least one phosphoro(di)thioate
; CC   link, having endonuclease activity. (A), and more generally any
; CC   catalytic nucleic acid (A') that modulates expression of the oestrogen
; CC   receptor gene, are used to treat cancer (particularly of breast or
; CC   endometrium), in vivo or by transforming cells ex vivo and implanting
; CC   treated cells, or for other conditions associated with levels of
; CC   oestrogen receptor. Because of the high selectivity for targeted RNA, (A)
; CC   can also be used to correlate inhibition of gene expression with
; CC   alterations in phenotype, particularly for identification of therapeutic
; CC   targets, and as research reagents (for RNA, in the  same way that
; CC   restriction endonucleases are used with DNA). The combination of
; CC   modifications in (A) improves resistance to nucleases, binding affinity
; CC   and/or activity. AAA23503 to AAA24747 represent oestrogen receptor
; CC   hammerhead ribozyme sequences, and AAA24748 to AAA25992 represent their
; CC   corresponding target sequences. AAA25993 to AAA26105 represent oestrogen
; CC   receptor hairpin ribozyme sequences, and AAA26107 to AAA26218 represent
; CC   their corresponding target sequences. AAA26219 to AAA26271 represent
; CC   other ribozyme sequences and antisense oligonucleotides used in the
; CC   exemplification of the present invention.
; XX
; SQ   Sequence 17 BP; 0 A; 0 C; 1 G; 16 T; 0 other;
;
;  AAA25449  Length: 17  October 16, 2003 08:46  Type: N  Check: 2839  ..
aaa25449

  Query Match             0.3%;  Score 15;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5207 AAAAAAAAAAAAAAA 5221
              |||||||||||||||
Db         17 AAAAAAAAAAAAAAA 3
```

```
RESULT 181
aaa25450
;  TOIG of: aaa25450  check: 2852  from: 1  to: 17
;
; ID   AAA25450 standard; DNA; 17 BP.
; XX
; AC   AAA25450;
; XX
; DT   19-JUL-2000  (first entry)
; XX
; DE   Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1948.
; XX
; KW   Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
; KW   hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
; KW   gene expression modification; cancer; phosphorothioate; endonuclease;
; KW   anticancer; breast cancer; endometrium cancer; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO9954459-A2.
; XX
; PD   28-OCT-1999.
; XX
; PF   19-APR-1999;   99WO-US08547.
; XX
; PR   20-APR-1998;   98US-0082404.
; PR   23-JUN-1998;   98US-0103636.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC.
; XX
; PI   Thompson JD,  Beigelman L,  McSwiggen JA,  Karpeisky A,  Bellon L;
; PI   Reynolds M,  Zwick M,  Jarvis T,  Woolf T,  Haeberli P;
; PI   Matulic-Adamic J;
; XX
; DR   WPI; 2000-013248/01.
; XX
; PT   New nucleic acids that interact, and optionally cleave, target
; PT   sequences, used to treat cancer  -
; XX
; PS   Claim 77; Page 79; 148pp; English.
; XX
; CC   The present invention describes nucleic acids (A) that interact stably
; CC   with a target sequence and contain at least one phosphoro(di)thioate
; CC   link, having endonuclease activity. (A), and more generally any
; CC   catalytic nucleic acid (A') that modulates expression of the oestrogen
; CC   receptor gene, are used to treat cancer (particularly of breast or
; CC   endometrium), in vivo or by transforming cells ex vivo and implanting
; CC   treated cells, or for other conditions associated with levels of
; CC   oestrogen receptor. Because of the high selectivity for targeted RNA, (A)
; CC   can also be used to correlate inhibition of gene expression with
; CC   alterations in phenotype, particularly for identification of therapeutic
; CC   targets, and as research reagents (for RNA, in the  same way that
; CC   restriction endonucleases are used with DNA). The combination of
; CC   modifications in (A) improves resistance to nucleases, binding affinity
; CC   and/or activity. AAA23503 to AAA24747 represent oestrogen receptor
; CC   hammerhead ribozyme sequences, and AAA24748 to AAA25992 represent their
; CC   corresponding target sequences. AAA25993 to AAA26105 represent oestrogen
; CC   receptor hairpin ribozyme sequences, and AAA26107 to AAA26218 represent
; CC   their corresponding target sequences. AAA26219 to AAA26271 represent
; CC   other ribozyme sequences and antisense oligonucleotides used in the
; CC   exemplification of the present invention.
; XX
; SQ   Sequence 17 BP; 0 A; 0 C; 0 G; 17 T; 0 other;
;
;  AAA25450  Length: 17  October 16, 2003 08:46  Type: N  Check: 2852  ..
aaa25450

  Query Match             0.3%;  Score 15;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;
```

```
Qy       4501 TTTTTTTTTTTTTTT 4515
             |||||||||||||||
Db          1 TTTTTTTTTTTTTTT 15


RESULT 182
aaa25450/c
;  TOIG of: aaa25450  check: 2852  from: 1  to: 17
;
; ID   AAA25450 standard; DNA; 17 BP.
; XX
; AC   AAA25450;
; XX
; DT   19-JUL-2000  (first entry)
; XX
; DE   Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1948.
; XX
; KW   Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
; KW   hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
; KW   gene expression modification; cancer; phosphorothioate; endonuclease;
; KW   anticancer; breast cancer; endometrium cancer; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO9954459-A2.
; XX
; PD   28-OCT-1999.
; XX
; PF   19-APR-1999;   99WO-US08547.
; XX
; PR   20-APR-1998;   98US-0082404.
; PR   23-JUN-1998;   98US-0103636.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC.
; XX
; PI   Thompson JD, Beigelman L, McSwiggen JA, Karpeisky A, Bellon L;
; PI   Reynolds M, Zwick M, Jarvis T, Woolf T, Haeberli P;
; PI   Matulic-Adamic J;
; XX
; DR   WPI; 2000-013248/01.
; XX
; PT   New nucleic acids that interact, and optionally cleave, target
; PT   sequences, used to treat cancer -
; XX
; PS   Claim 77; Page 79; 148pp; English.
; XX
; CC   The present invention describes nucleic acids (A) that interact stably
; CC   with a target sequence and contain at least one phosphoro(di)thioate
; CC   link, having endonuclease activity. (A), and more generally any
; CC   catalytic nucleic acid (A') that modulates expression of the oestrogen
; CC   receptor gene, are used to treat cancer (particularly of breast or
; CC   endometrium), in vivo or by transforming cells ex vivo and implanting
; CC   treated cells, or for other conditions associated with levels of
; CC   oestrogen receptor. Because of the high selectivity for targeted RNA, (A)
; CC   can also be used to correlate inhibition of gene expression with
; CC   alterations in phenotype, particularly for identification of therapeutic
; CC   targets, and as research reagents (for RNA, in the same way that
; CC   restriction endonucleases are used with DNA). The combination of
; CC   modifications in (A) improves resistance to nucleases, binding affinity
; CC   and/or activity. AAA23503 to AAA24747 represent oestrogen receptor
; CC   hammerhead ribozyme sequences, and AAA24748 to AAA25992 represent their
; CC   corresponding target sequences. AAA25993 to AAA26105 represent oestrogen
; CC   receptor hairpin ribozyme sequences, and AAA26107 to AAA26218 represent
; CC   their corresponding target sequences. AAA26219 to AAA26271 represent
; CC   other ribozyme sequences and antisense oligonucleotides used in the
; CC   exemplification of the present invention.
; XX
; SQ   Sequence 17 BP; 0 A; 0 C; 0 G; 17 T; 0 other;
;
;  AAA25450  Length: 17  October 16, 2003 08:46  Type: N  Check: 2852  ..
aaa25450

  Query Match             0.3%;  Score 15;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5207 AAAAAAAAAAAAAAA 5221
             |||||||||||||||
Db         17 AAAAAAAAAAAAAAA 3


RESULT 183
aaa25452/c
;  TOIG of: aaa25452  check: 2644  from: 1  to: 17
;
; ID   AAA25452 standard; DNA; 17 BP.
; XX
; AC   AAA25452;
; XX
; DT   19-JUL-2000  (first entry)
; XX
; DE   Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1950.
; XX
; KW   Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
; KW   hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
; KW   gene expression modification; cancer; phosphorothioate; endonuclease;
; KW   anticancer; breast cancer; endometrium cancer; ss.
; XX
; OS   Homo sapiens
; XX
; PN   WO9954459 A2.
; XX
; PD   28-OCT-1999.
; XX
; PF   19-APR-1999;   99WO-US08547.
; XX
; PR   20 APR-1998;   98US 0082404.
; PR   23-JUN-1998;   98US-0103636.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC.
; XX
; PI   Thompson JD, Beigelman L, McSwiggen JA, Karpeisky A, Bellon L;
; PI   Reynolds M, Zwick M, Jarvis T, Woolf T, Haeberli P;
; PI   Matulic-Adamic J;
; XX
; DR   WPI; 2000-013248/01.
; XX
; PT   New nucleic acids that interact, and optionally cleave, target
; PT   sequences, used to treat cancer -
; XX
; PS   Claim 77; Page 79; 148pp; English.
; XX
; CC   The present invention describes nucleic acids (A) that interact stably
; CC   with a target sequence and contain at least one phosphoro(di)thioate
; CC   link, having endonuclease activity. (A), and more generally any
; CC   catalytic nucleic acid (A') that modulates expression of the oestrogen
; CC   receptor gene, are used to treat cancer (particularly of breast or
; CC   endometrium), in vivo or by transforming cells ex vivo and implanting
; CC   treated cells, or for other conditions associated with levels of
; CC   oestrogen receptor. Because of the high selectivity for targeted RNA, (A)
; CC   can also be used to correlate inhibition of gene expression with
; CC   alterations in phenotype, particularly for identification of therapeutic
; CC   targets, and as research reagents (for RNA, in the same way that
; CC   restriction endonucleases are used with DNA). The combination of
; CC   modifications in (A) improves resistance to nucleases, binding affinity
; CC   and/or activity. AAA23503 to AAA24747 represent oestrogen receptor
; CC   hammerhead ribozyme sequences, and AAA24748 to AAA25992 represent their
; CC   corresponding target sequences. AAA25993 to AAA26105 represent oestrogen
; CC   receptor hairpin ribozyme sequences, and AAA26107 to AAA26218 represent
; CC   their corresponding target sequences. AAA26219 to AAA26271 represent
; CC   other ribozyme sequences and antisense oligonucleotides used in the
; CC   exemplification of the present invention.
; XX
; SQ   Sequence 17 BP; 0 A; 0 C; 1 G; 16 T; 0 other;
;
;  AAA25452  Length: 17  October 16, 2003 08:46  Type: N  Check: 2644  ..
```

aaa25452

Query Match 0.3%; Score 15; DB 1; Length 17;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 15; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 5207 AAAAAAAAAAAAAAA 5221
||||||||||||||||
Db 15 AAAAAAAAAAAAAAA 1

RESULT 184
aaa25453
; TOIG of: aaa25453 check: 2334 from: 1 to: 17
;
; ID AAA25453 standard; DNA; 17 BP.
; XX
; AC AAA25453;
; XX
; DT 19-JUL-2000 (first entry)
; XX
; DE Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1951.
; XX
; KW Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
; KW hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
; KW gene expression modification; cancer; phosphorothioate; endonuclease;
; KW anticancer; breast cancer; endometrium cancer; ss.
; XX
; OS Homo sapiens.
; XX
; PN WO9954459-A2.
; XX
; PD 28-OCT-1999.
; XX
; PF 19-APR-1999; 99WO-US08547.
; XX
; PR 20-APR-1998; 98US-0082404.
; PR 23-JUN-1998; 98US-0103636.
; XX
; PA (RIBO-) RIBOZYME PHARM INC.
; XX
; PI Thompson JD, Beigelman L, McSwiggen JA, Karpelsky A, Bellon L;
; PI Reynolds M, Zwick M, Jarvis T, Woolf T, Haeberli P;
; PI Matulic-Adamic J;
; XX
; DR WPI; 2000-013248/01.
; XX
; PT New nucleic acids that interact, and optionally cleave, target
; PT sequences, used to treat cancer -
; XX
; PS Claim 77; Page 79; 148pp; English.
; XX
; CC The present invention describes nucleic acids (A) that interact stably
; CC with a target sequence and contain at least one phosphoro(di)thioate
; CC link, having endonuclease activity. (A), and more generally any
; CC catalytic nucleic acid (A') that modulates expression of the oestrogen
; CC receptor gene, are used to treat cancer (particularly of breast or
; CC endometrium), in vivo or by transforming cells ex vivo and implanting
; CC treated cells, or for other conditions associated with levels of
; CC oestrogen receptor. Because of the high selectivity for targeted RNA, (A)
; CC can also be used to correlate inhibition of gene expression with
; CC alterations in phenotype, particularly for identification of therapeutic
; CC targets, and as research reagents (for RNA, in the same way that
; CC restriction endonucleases are used with DNA). The combination of
; CC modifications in (A) improves resistance to nucleases, binding affinity
; CC and/or activity. AAA23503 to AAA24747 represent oestrogen receptor
; CC hammerhead ribozyme sequences, and AAA24748 to AAA25992 represent their
; CC corresponding target sequences. AAA25993 to AAA26105 represent oestrogen
; CC receptor hairpin ribozyme sequences, and AAA26107 to AAA26218 represent
; CC their corresponding target sequences. AAA26219 to AAA26271 represent
; CC other ribozyme sequences and antisense oligonucleotides used in the
; CC exemplification of the present invention.
; XX
; SQ Sequence 17 BP; 1 A; 0 C; 1 G; 15 T; 0 other;
;
; AAA25453 Length: 17 October 16, 2003 08:46 Type: N Check: 2334 ..
aaa25453

Query Match 0.3%; Score 15; DB 1; Length 17;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 15; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 4502 TTTTTTTTTTTTTTG 4516
||||||||||||||||
Db 1 TTTTTTTTTTTTTTG 15

RESULT 185
aax82721/c
; TOIG of: aax82721 check: 2618 from: 1 to: 17
;
; ID AAX82721 standard; DNA; 17 BP.
; XX
; AC AAX82721;
; XX
; DT 10-NOV-2000 (first entry)
; XX
; DE Human IgA nephropathy-associated cDNA primer #62.
; XX
; KW IgA nephropathy-associated protein; diagnosis; treatment; antisense;
; KW human; primer; ss.
; XX
; OS Homo sapiens.
; XX
; PN WO9963085-A1.
; XX
; PD 09-DEC-1999.
; XX
; PF 28-MAY-1999; 99WO-JP02855.
; XX
; PR 02-JUN-1998; 98JP-0152603.
; XX
; PA (KYOW) KYOWA HAKKO KOGYO KK.
; XX
; PI Ishiwata T, Sakurada M, Kawabata A, Nakagawa S, Nishi T, Kuga T;
; PI Sawada S, Takei M, Shibata K, Furuya A;
; XX
; DR WPI; 2000-097328/08.
; XX
; PT DNA sequences preferentially expressed in IgA nephropathy patients,
; PT proteins encoded by them, and antibodies to those proteins -
; XX
; PS Claim 3; Page 170; 180pp; Japanese.
; XX
; CC This invention describes novel DNA sequences preferentially expressed in
; CC IgA nephropathy patients, and DNA sequences stringently hybridizing to
; CC them. Independent claims cover diagnostic reagents for IgA nephropathy
; CC incorporating the antisense sequences; the treatment of IgA nephropathy
; CC using the antisense sequences for mRNA inhibition; proteins associated
; CC with IgA nephropathy, containing sequences encoded by the DNA sequences;
; CC antibodies recognizing these proteins; the production of the proteins
; CC by culture of host cells transformed with DNA encoding them; diagnostic
; CC reagents for IgA nephropathy containing the antibodies; and compositions
; CC for the treatment of IgA nephropathy which contain the antibodies. The
; CC products of the invention can be used for the diagnosis and treatment of
; CC IgA nephropathy. This sequence represents a primer used in the isolation
; CC and identification of the human IgA nephropathy-associated proteins
; CC described in the method of the invention.
; XX
; SQ Sequence 17 BP; 0 A; 0 C; 2 G; 15 T; 0 other;
;
; AAX82721 Length: 17 October 16, 2003 08:46 Type: N Check: 2618 ..
aax82721

Query Match 0.3%; Score 15; DB 1; Length 17;
Best Local Similarity 100.0%; Pred. No. 0;

```
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5207 AAAAAAAAAAAAAAA 5221
              |||||||||||||||
Db         16 AAAAAAAAAAAAAAA 2


RESULT 186
aax82722/c
;  TOIG of: aax82722  check: 2550  from: 1  to: 17
;
; ID   AAX82722 standard; DNA; 17 BP.
; XX
; AC   AAX82722;
; XX
; DT   10-NOV-2000  (first entry)
; XX
; DE   Human IgA nephropathy-associated cDNA primer #63.
; XX
; KW   IgA nephropathy-associated protein; diagnosis; treatment; antisense;
; KW   human; primer; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO9963085-A1.
; XX
; PD   09-DEC-1999.
; XX
; PF   28-MAY-1999;   99WO-JP02855.
; XX
; PR   02-JUN-1998;   98JP-0152603.
; XX
; PA   (KYOW ) KYOWA HAKKO KOGYO KK.
; XX
; PI   Ishiwata T,  Sakurada M,  Kawabata A,  Nakagawa S,  Nishi T,  Kuga T;
; PI   Sawada S,  Takei M,  Shibata K,  Furuya A;
; XX
; DR   WPI; 2000-097328/08.
; XX
; PT   DNA sequences preferentially expressed in IgA nephropathy patients,
; PT   proteins encoded by them, and antibodies to those proteins  -
; XX
; PS   Claim 3; Page 170; 180pp; Japanese.
; XX
; CC   This invention describes novel DNA sequences preferentially expressed in
; CC   IgA nephropathy patients, and DNA sequences stringently hybridizing to
; CC   them. Independent claims cover diagnostic reagents for IgA nephropathy
; CC   incorporating the antisense sequences; the treatment of IgA nephropathy
; CC   using the antisense sequences for mRNA inhibition; proteins associated
; CC   with IgA nephropathy, containing sequences encoded by the DNA sequences;
; CC   antibodies recognizing these proteins; the production of the proteins
; CC   by culture of host cells transformed with DNA encoding them; diagnostic
; CC   reagents for IgA nephropathy containing the antibodies; and compositions
; CC   for the treatment of IgA nephropathy which contain the antibodies. The
; CC   products of the invention can be used for the diagnosis and treatment of
; CC   IgA nephropathy. This sequence represents a primer used in the isolation
; CC   and identification of the human IgA nephropathy-associated proteins
; CC   described in the method of the invention.
; XX
; SQ   Sequence 17 BP; 0 A; 1 C; 1 G; 15 T; 0 other;
;
;  AAX82722  Length: 17  October 16, 2003 08:46  Type: N  Check: 2550  .
aax82722

  Query Match             0.3%;  Score 15;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5207 AAAAAAAAAAAAAAA 5221
              |||||||||||||||
Db         16 AAAAAAAAAAAAAAA 2


RESULT 187
abk19050/c
;  TOIG of: abk19050  check: 933  from: 1  to: 17
;
; ID   ABK19050 standard; RNA; 17 BP.
; XX
; AC   ABK19050;
; XX
; DT   09-APR-2002  (first entry)
; XX
; DE   Human ERG DNAzyme target sequence Seq ID No 1697.
; XX
; KW   Human; hammerhead ribozyme; cytostatic; antitumour; antidiabetic;
; KW   ophthalmological; antiarthritic; antipsoriatic; virucide; osteopathic;
; KW   vulnerary; cancer; lymphoma; Ewing's sarcoma; melanoma; psoriasis;
; KW   tumour angiogenesis; diabetic retinopathy; macular degeneration;
; KW   neovascular glaucoma; myopic degeneration; arthritis; verruca vulgaris;
; KW   angiofibroma of tuberous sclerosis; port-wine stain; wound healing;
; KW   Sturge Weber syndrome; Kippel Trenaunay-Weber syndrome; leukaemia; ss;
; KW   Osler-Weber-rendu syndrome; leukaemia; osteoporosis; DNAzyme; inozyme;
; KW   amberzyme.
; XX
; OS   Homo sapiens.
; XX
; PN   WO200188124-A2.
; XX
; PD   22-NOV-2001.
; XX
; PF   16-MAY-2001; 2001WO-US15866.
; XX
; PR   16-MAY-2000; 2000US-0572021.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC
; PA   (GLAX ) GLAXO GROUP LTD.
; XX
; PI   Jarvis T,  Von Carlowitz I,  McSwiggen JA,  Mclaughlin F,  Randi AM;
; XX
; DR   WPI; 2002-082995/11.
; XX
; PT   Novel polynucleotide which down regulates expression of Ets-related
; PT   gene, useful for treating cancer, diabetic retinopathy, macular
; PT   degeneration, arthritis, psoriasis, verruca vulgaris and Sturge Weber
; PT   syndrome  -
; XX
; PS   Claim 4; Page 107; 149pp; English.
; XX
; CC   The invention relates to a nucleic acid molecule (I) which down regulates
; CC   expression of an Ets-related gene (ERG). (I) is useful for treating
; CC   conditions selected from cancer, lymphoma, Ewing's sarcoma, melanoma,
; CC   tumour angiogenesis, diabetic retinopathy, macular degeneration,
; CC   neovascular glaucoma, myopic degeneration, arthritis, psoriasis, verruca
; CC   vulgaris, angiofibroma of tuberous sclerosis, port-wine stains, Sturge
; CC   Weber syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-rendu
; CC   syndrome, leukaemia, osteoporosis and wound healing. (I) is useful for
; CC   treating a patient having a condition associated with the level of ERG,
; CC   by contacting cells of the patient with (I) under conditions suitable for
; CC   the treatment. The method comprises the use of one or more therapies
; CC   under conditions suitable for the treatment. Leukaemia or tumour
; CC   angiogenesis is treated by administering (I) to the patient in
; CC   conjunction with one or more of other therapies such as radiation or
; CC   chemotherapy treatment. (I) is useful for reducing ERG activity in a
; CC   cell, by contacting the cell with (I). (I) is useful for cleaving RNA of
; CC   ERG gene, by contacting (I) with RNA, in the presence of a divalent
; CC   cation such as Mg2+. (I) is useful for diagnosis of conditions and
; CC   diseases related to the expression of ERG, and as diagnostic tool to
; CC   examine genetic drift and mutations within diseased cells or to detect
; CC   the presence of ERG RNA in a cell. (I) is useful for specifically
; CC   targeting genes that share homology with ERG gene or ERG fusion genes.
; CC   ABK17354-ABK22719 represent nucleic acids, including antisense and
; CC   enzymatic nucleic acid molecules which regulate expression of ERG, and
; CC   related PCR primers of the invention.
; XX
; SQ   Sequence 17 BP; 8 A; 4 C; 1 G; 4 U; 0 other;
```

```
;
;  ABK19050  Length: 17  October 16, 2003 08:46  Type: N  Check: 933  ..
abk19050

  Query Match              0.3%;  Score 15;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4481 GAATGTATTTGATTT 4495
              |||||||||||||||
Db         16 GAATGTATTTGATTT 2


RESULT 188
aad03565
;  TOIG of: aad03565  check: 4364  from: 1  to: 18
;
; ID   AAD03565 standard; DNA; 18 BP.
; XX
; AC   AAD03565;
; XX
; DT   19-JUN-2001  (first entry)
; XX
; DE   Oligonucleotide #6 used for the preparation of normalised cDNA libraries.
; XX
; KW   Rat; secreted factor; clone P00188_D12; cardiant; antiinflammatory;
; KW   antiarrhythmic; antiarteriosclerotic; antiatherosclerotic; nephropathic;
; KW   antidiabetic; immunosuppressive; antiasthmatic; antirheumatoid;
; KW   antibacterial; osteopathic; cerebroprotective; vasotropic; antiulcer;
; KW   nootropic; neuroprotective; congestive heart failure; myocarditis;
; KW   hypertrophic cardiomyopathy; angina pectoris; myocardial infarction;
; KW   kidney disease; acute renal failure; renal glucosuria; renal infarction;
; KW   polycystic kidney disease; hereditary nephritis; inflammatory disease;
; KW   tumour angiogenesis; osteoarthritis; toxic shock syndrome; psoriasis;
; KW   stroke; neural trauma; cerebral malaria; Crohn's disease; osteoporosis;
; KW   ulcerative colitis; Alzheimer's disease; gene therapy; ss.
; XX
; OS   Rattus norvegicus.
; XX
; PN   WO200123564-A1.
; XX
; PD   05-APR-2001.
; XX
; PF   27-SEP-2000; 2000WO-US26544.
; XX
; PR   27-SEP-1999;   99US-0156280.
; XX
; PA   (SCIO-) SCIOS INC.
; XX
; PI   Stanton LW,  Kapoun AM;
; XX
; DR   WPI; 2001-266159/27.
; XX
; PT   Novel secreted factor encoded by clone P00188D12 which is
; PT   differentially expressed in certain disease states, useful in
; PT   diagnosing and treating cardiac, renal or inflammatory diseases
; XX
; PS   Example 1; Page 42; 71pp; English.
; XX
; CC   The patent discloses novel secreted factor protein encoded by clone
; CC   P00188_D12. The secreted factor is differentially expressed in certain
; CC   disease states. Secreted protein, its antibodies, antagonists or
; CC   compositions comprising them are useful in the diagnosis and treatment
; CC   of cardiac diseases such as congestive heart failure, myocarditis,
; CC   hypertrophic cardiomyopathy, angina pectoris, myocardial infarction,
; CC   cardiac arrhythmia, arteriosclerosis, kidney diseases such as acute
; CC   renal failure, renal glucosuria, renal infarction, nephrogenic
; CC   diabetes insipidus, polycystic kidney disease, hereditary nephritis
; CC   and inflammatory diseases such as asthma, autoimmune diabetes, tumour
; CC   angiogenesis, rheumatoid arthritis, osteoarthritis, toxic shock
; CC   syndrome, asthma, stroke, neural trauma, psoriasis, cerebral malaria,
; CC   osteoporosis, Crohn's disease, ulcerative colitis, Alzheimer's disease.
; CC   Secreted protein DNA is useful in antisense-mediated gene inhibition
; CC   and in gene therapy. An array comprising one or more oligonucleotides
; CC   complementary to reference RNA or DNA encoding the secreted factor is
; CC   useful for detecting cardiac, kidney and inflammatory disease.
; CC   The present DNA sequence is an oligonucleotide which is used in the
; CC   preparation of a normalised cDNA library containing secreted factor
; CC   DNAs. The normalised cDNA libraries are used in the identification
; CC   of differentially expressed rat secreted factor P00188_D12 gene.
; XX
; SQ   Sequence 18 BP; 0 A; 0 C; 0 G; 18 T; 0 other;
;
;  AAD03565  Length: 18  October 16, 2003 08:46  Type: N  Check: 4364  ..
aad03565

  Query Match              0.3%;  Score 15;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4501 TTTTTTTTTTTTTTT 4515
              |||||||||||||||
Db          1 TTTTTTTTTTTTTTT 15


RESULT 189
aad03565/c
;  TOIG of: aad03565  check: 4364  from: 1  to: 18
;
; ID   AAD03565 standard; DNA; 18 BP.
; XX
; AC   AAD03565;
; XX
; DT   19-JUN-2001  (first entry)
; XX
; DE   Oligonucleotide #6 used for the preparation of normalised cDNA libraries.
; XX
; KW   Rat; secreted factor; clone P00188_D12; cardiant; antiinflammatory;
; KW   antiarrhythmic; antiarteriosclerotic; antiatherosclerotic; nephropathic;
; KW   antidiabetic; immunosuppressive; antiasthmatic; antirheumatoid;
; KW   antibacterial; osteopathic; cerebroprotective; vasotropic; antiulcer;
; KW   nootropic; neuroprotective; congestive heart failure; myocarditis;
; KW   hypertrophic cardiomyopathy; angina pectoris; myocardial infarction;
; KW   kidney disease; acute renal failure; renal glucosuria; renal infarction;
; KW   polycystic kidney disease; hereditary nephritis; inflammatory disease;
; KW   tumour angiogenesis; osteoarthritis; toxic shock syndrome; psoriasis;
; KW   stroke; neural trauma; cerebral malaria; Crohn's disease; osteoporosis;
; KW   ulcerative colitis; Alzheimer's disease; gene therapy; ss.
; XX
; OS   Rattus norvegicus.
; XX
; PN   WO200123564-A1.
; XX
; PD   05-APR-2001.
; XX
; PF   27-SEP-2000; 2000WO-US26544.
; XX
; PR   27-SEP-1999;   99US-0156280.
; XX
; PA   (SCIO-) SCIOS INC.
; XX
; PI   Stanton LW,  Kapoun AM;
; XX
; DR   WPI; 2001-266159/27.
; XX
; PT   Novel secreted factor encoded by clone P00188D12 which is
; PT   differentially expressed in certain disease states, useful in
; PT   diagnosing and treating cardiac, renal or inflammatory diseases
; XX
; PS   Example 1; Page 42; 71pp; English.
; XX
; CC   The patent discloses novel secreted factor protein encoded by clone
; CC   P00188_D12. The secreted factor is differentially expressed in certain
; CC   disease states. Secreted protein, its antibodies, antagonists or
; CC   compositions comprising them are useful in the diagnosis and treatment
; CC   of cardiac diseases such as congestive heart failure, myocarditis,
```

; CC hypertrophic cardiomyopathy, angina pectoris, myocardial infarction,
; CC cardiac arrhythmia, arteriosclerosis, kidney diseases such as acute
; CC renal failure, renal glucosuria, renal infarction, nephrogenic
; CC diabetes insipidus, polycystic kidney disease, hereditary nephritis
; CC and inflammatory diseases such as asthma, autoimmune diabetes, tumour
; CC angiogenesis, rheumatoid arthritis, osteoarthritis, toxic shock
; CC syndrome, asthma, stroke, neural trauma, psoriasis, cerebral malaria,
; CC osteoporosis, Crohn's disease, ulcerative colitis, Alzheimer's disease.
; CC Secreted protein DNA is useful in antisense-mediated gene inhibition
; CC and in gene therapy. An array comprising one or more oligonucleotides
; CC complementary to reference RNA or DNA encoding the secreted factor is
; CC useful for detecting cardiac, kidney and inflammatory disease.
; CC The present DNA sequence is an oligonucleotide which is used in the
; CC preparation of a normalised cDNA library containing secreted factor
; CC DNAs. The normalised cDNA libraries are used in the identification
; CC of differentially expressed rat secreted factor P00188_C12 gene.
; XX
; SQ Sequence 18 BP; 0 A; 0 C; 0 G; 18 T; 0 other;
;
; AAD03565 Length: 18 October 16, 2003 08:46 Type: N Check: 4364 ..
aad03565

Query Match 0.3%; Score 15; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 15; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 5207 AAAAAAAAAAAAAAA 5221
||||||||||||||| |
Db 18 AAAAAAAAAAAAAAA 4

RESULT 190
aaf82472
; TOIG of: aaf82472 check: 4364 from: 1 to: 18
;
; ID AAF82472 standard; DNA; 18 BP.
; XX
; AC AAF82472;
; XX
; DT 29-JUN-2001 (first entry)
; XX
; DE Phagemid vector pCR2.1 polylinker oligonucleotide #6.
; XX
; KW Phagemid vector; pCR2.1; rat; secreted factor; P00210D09; cardiant;
; KW nephrotropic; antiinflammatory; gene therapy; cardiac disease;
; KW renal disease; inflammatory disease; polylinker; ss.
; XX
; OS Synthetic.
; XX
; PN WO200123419-A2.
; XX
; PD 05-APR-2001.
; XX
; PF 27-SEP-2000; 2000WO-US26582.
; XX
; PR 27-SEP-1999; 99US-0156277.
; XX
; PA (SCIO-) SCIOS INC.
; XX
; PI Stanton LW, Kapoun AM;
; XX
; DR WPI; 2001-328177/34.
; XX
; PT Novel secreted factor encoded by clone P00210D09 useful for diagnosing,
; PT treating and/or preventing various cardiac, renal and inflammatory
; PT diseases -
; XX
; PS Example 1; Page 41; 69pp; English.
; XX
; CC The present sequence corresponds to polylinker DNA of the phagemid
; CC vector pCR2.1. It was used in the construction of a normalised rat cDNA
; CC library, which was used in an example demonstrating differential
; CC expression of a rat gene referred to as clone P00210D09. The invention
; CC relates to a polypeptide comprising a sequence of at least 80% identity
; CC to residues 22-122 of the present sequence, or a sequence encoded by a
; CC nucleic acid hybridising under stringent conditions to the complement of
; CC the coding region comprising 1031 nucleotides, and having at least one
; CC biological activity of the polypeptide encoded by clone P00210D09. The
; CC polypeptides and polynucleotides of the invention are useful for the
; CC treatment of cardiac, renal and inflammatory diseases. The
; CC polynucleotides are useful in antisense mediated gene inhibition and in
; CC gene therapy. The polypeptides are useful in assays for identifying lead
; CC compounds that may be used as therapeutic agents in the treatment of
; CC cardiac, kidney or inflammatory diseases.
; XX
; SQ Sequence 18 BP; 0 A; 0 C; 0 G; 18 T; 0 other;
;
; AAF82472 Length: 18 October 16, 2003 08:46 Type: N Check: 4364 ..
aaf82472

Query Match 0.3%; Score 15; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 15; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 4501 TTTTTTTTTTTTTTT 4515
||||||||||||||| |
Db 1 TTTTTTTTTTTTTTT 15

RESULT 191
aaf82472/c
; TOIG of: aaf82472 check: 4364 from: 1 to: 18
;
; ID AAF82472 standard; DNA; 18 BP.
; XX
; AC AAF82472;
; XX
; DT 29-JUN-2001 (first entry)
; XX
; DE Phagemid vector pCR2.1 polylinker oligonucleotide #6.
; XX
; KW Phagemid vector; pCR2.1; rat; secreted factor; P00210D09; cardiant;
; KW nephrotropic; antiinflammatory; gene therapy; cardiac disease;
; KW renal disease; inflammatory disease; polylinker; ss.
; XX
; OS Synthetic.
; XX
; PN WO200123419-A2.
; XX
; PD 05-APR-2001.
; XX
; PF 27-SEP-2000; 2000WO-US26582.
; XX
; PR 27-SEP-1999; 99US-0156277.
; XX
; PA (SCIO-) SCIOS INC.
; XX
; PI Stanton LW, Kapoun AM;
; XX
; DR WPI; 2001-328177/34.
; XX
; PT Novel secreted factor encoded by clone P00210D09 useful for diagnosing,
; PT treating and/or preventing various cardiac, renal and inflammatory
; PT diseases -
; XX
; PS Example 1; Page 41; 69pp; English.
; XX
; CC The present sequence corresponds to polylinker DNA of the phagemid
; CC vector pCR2.1. It was used in the construction of a normalised rat cDNA
; CC library, which was used in an example demonstrating differential
; CC expression of a rat gene referred to as clone P00210D09. The invention
; CC relates to a polypeptide comprising a sequence of at least 80% identity
; CC to residues 22-122 of the present sequence, or a sequence encoded by a
; CC nucleic acid hybridising under stringent conditions to the complement of
; CC the coding region comprising 1031 nucleotides, and having at least one
; CC biological activity of the polypeptide encoded by clone P00210D09. The

; CC polypeptides and polynucleotides of the invention are useful for the
; CC treatment of cardiac, renal and inflammatory diseases. The
; CC polynucleotides are useful in antisense mediated gene inhibition and in
; CC gene therapy. The polypeptides are useful in assays for identifying lead
; CC compounds that may be used as therapeutic agents in the treatment of
; CC cardiac, kidney or inflammatory diseases.
; XX
; SQ Sequence 18 BP; 0 A; 0 C; 0 G; 18 T; 0 other;
;
; AAF82472 Length: 18 October 16, 2003 08:46 Type: N Check: 4364 ..
aaf82472

Query Match 0.3%; Score 15; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 15; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 5207 AAAAAAAAAAAAAAA 5221
||||||||||||||||
Db 18 AAAAAAAAAAAAAAA 4

RESULT 192
aav21970
; TOIG of: aav21970 check: 4364 from: 1 to: 18
;
; ID AAV21970 standard; DNA; 18 BP.
; XX
; AC AAV21970;
; XX
; DT 14-JUL-1998 (first entry)
; XX
; DE Nuclease resistant antisense oligo NBT 13 targeted against (T)18.
; XX
; KW Nuclease resistant; bacterial infection; antibiotic; target;
; KW veterinary medicine; treatment; human; industrial process;
; KW bacterial control; ss.
; XX
; OS Synthetic.
; XX
; PN WO9803533-A1.
; XX
; PD 29-JAN-1998.
; XX
; PF 23-JUL-1997; 97WO-US12961.
; XX
; PR 24-JUL-1996; 96US-0685575.
; XX
; PA (OLIG-) OLIGOS ETC & OLIGOS THERAPEUTICS INC.
; XX
; PI Arrow A, Dale RMK, Thompson TL;
; XX
; DR WPI; 1998-120687/11.
; XX
; PT Treating bacterial infections in humans or animals with
; PT oligo:nucleotide(s) - resistant to nuclease and targetted to
; PT bacterial nucleic acid or proteins, also conjugates of these
; PT oligo:nucleotide(s) with antibiotics
; XX
; PS Claim 49; Page 87; 163pp; English.
; XX
; CC This antisense oligonucleotide is nuclease resistant and can be used in
; CC the treatment of animals, including humans, having a bacterial infection.
; CC The treatment comprises administration of such nuclease resistant
; CC oligonucleotides, targeted to a nucleic acid or protein of the bacterium,
; CC and formulated with a carrier. A compound comprising this nuclease
; CC resistant oligonucleotide can be covalently linked to an antibiotic. The
; CC method is used to treat infections by a wide variety of Gram-positive and
; CC Gram-negative, or acid-fast, bacteria, in human and veterinary medicine.
; CC The methods are particularly used in immuno-compromised individuals
; CC (e.g. patients with acquired immunodeficiency syndrome or those receiving
; CC chemotherapy or radiation therapy), optionally in combination with, or
; CC fused to, antiviral or other antimicrobial oligonucleotides. Apart from
; CC therapeutic use, the oligonucleotides can be used to control bacteria
; CC in laboratory cultures, foods, beverages and industrial processes. The
; CC oligonucleotides are specific for bacteria, without affecting metabolism
; CC in mammalian cells. They may also activate RNase H and have a general,
; CC non-specific immune-stimulating effect. The oligonucleotides can be
; CC administered orally, intranasally, rectally, topically or by injection,
; CC optionally coupled to an agent (e.g. carbohydrate or polyamine) that
; CC enhances cellular uptake.
; XX
; SQ Sequence 18 BP; 0 A; 0 C; 0 G; 18 T; 0 other;
;
; AAV21970 Length: 18 October 16, 2003 08:46 Type: N Check: 4364 ..
aav21970

Query Match 0.3%; Score 15; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 15; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 4501 TTTTTTTTTTTTTTT 4515
||||||||||||||||
Db 1 TTTTTTTTTTTTTTT 15

RESULT 193
aav21970/c
; TOIG of: aav21970 check: 4364 from: 1 to: 18
;
; ID AAV21970 standard; DNA; 18 BP.
; XX
; AC AAV21970;
; XX
; DT 14-JUL-1998 (first entry)
; XX
; DE Nuclease resistant antisense oligo NBT 13 targeted against (T)18.
; XX
; KW Nuclease resistant; bacterial infection; antibiotic; target;
; KW veterinary medicine; treatment; human; industrial process;
; KW bacterial control; ss.
; XX
; OS Synthetic.
; XX
; PN WO9803533-A1.
; XX
; PD 29-JAN-1998.
; XX
; PF 23-JUL-1997; 97WO-US12961.
; XX
; PR 24-JUL-1996; 96US-0685575.
; XX
; PA (OLIG-) OLIGOS ETC & OLIGOS THERAPEUTICS INC.
; XX
; PI Arrow A, Dale RMK, Thompson TL;
; XX
; DR WPI; 1998-120687/11.
; XX
; PT Treating bacterial infections in humans or animals with
; PT oligo:nucleotide(s) - resistant to nuclease and targetted to
; PT bacterial nucleic acid or proteins, also conjugates of these
; PT oligo:nucleotide(s) with antibiotics
; XX
; PS Claim 49; Page 87; 163pp; English.
; XX
; CC This antisense oligonucleotide is nuclease resistant and can be used in
; CC the treatment of animals, including humans, having a bacterial infection.
; CC The treatment comprises administration of such nuclease resistant
; CC oligonucleotides, targeted to a nucleic acid or protein of the bacterium,
; CC and formulated with a carrier. A compound comprising this nuclease
; CC resistant oligonucleotide can be covalently linked to an antibiotic. The
; CC method is used to treat infections by a wide variety of Gram-positive and
; CC Gram-negative, or acid-fast, bacteria, in human and veterinary medicine.
; CC The methods are particularly used in immuno-compromised individuals
; CC (e.g. patients with acquired immunodeficiency syndrome or those receiving
; CC chemotherapy or radiation therapy), optionally in combination with, or
; CC fused to, antiviral or other antimicrobial oligonucleotides. Apart from

; CC therapeutic use, the oligonucleotides can be used to control bacteria
; CC in laboratory cultures, foods, beverages and industrial processes. The
; CC oligonucleotides are specific for bacteria, without affecting metabolism
; CC in mammalian cells. They may also activate RNase H and have a general,
; CC non-specific immune-stimulating effect. The oligonucleotides can be
; CC administered orally, intranasally, rectally, topically or by injection,
; CC optionally coupled to an agent (e.g. carbohydrate or polyamine) that
; CC enhances cellular uptake.
; XX
; SQ Sequence 18 BP; 0 A; 0 C; 0 G; 18 T; 0 other;
;
; AAV21970 Length: 18 October 16, 2003 08:46 Type: N Check: 4364 ..
aav21970

Query Match 0.3%; Score 15; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 15; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 5207 AAAAAAAAAAAAAAA 5221
||||||||||||||||
Db 18 AAAAAAAAAAAAAAA 4

RESULT 194
aaz87161
; TOIG of: aaz87161 check: 1115 from: 1 to: 18
;
; ID AAZ87161 standard; RNA; 18 BP.
; XX
; AC AAZ87161;
; XX
; DT 08-MAY-2000 (first entry)
; XX
; DE Oligoarabinonucleotide SEQ ID NO:2.
; XX
; KW Beta-D-arabinose; antisense; inhibition;
; KW transcription; expression; reverse transcription;
; KW viral replication; RNase H cleavage; triple helix formation; ss.
; XX
; OS Synthetic.
; XX
; FH Key Location/Qualifiers
; FT modified_base 1. .18
; FT /*tag= a
; FT /note= "Ribose moiety replaced by beta-D arabinose"
; XX
; PN WO9967378-A1.
; XX
; PD 29-DEC-1999.
; XX
; PF 17-JUN-1999; 99WO-CA00571.
; XX
; PR 19-JUN-1998; 98CA-2241361.
; XX
; PA (UYMC-) UNIV MCGILL.
; XX
; PI Damha MJ, Parniak MA, Noronha AM, Wilds C, Borkow G, Arion D;
; XX
; DR WPI; 2000-160584/14.
; XX
; PT Therapeutic composition containing antisense oligonucleotides that
; PT include arabinose sugars, particularly for inhibiting viral replication
; PT -
; XX
; PS Example 1; Page 29; 91pp; English.
; XX
; CC The invention relates to a new composition for selective, sequence-
; CC specific inhibition of gene transcription and expression in a host. The
; CC composition comprises oligonucleotides containing arabinose sugars that
; CC can hybridise to either a a single-stranded (ss) RNA to induce RNase H
; CC cleavage activity, or to a DNA/DNA or DNA/RNA duplex to form a triple
; CC helix, thereby inhibiting DNA replication and/or transcription. The
; CC oligoarabinonucleotides are used for antisense inhibition of gene
; CC expression or to prevent DNA replication, or reverse transcription of
; CC RNA by retroviruses. The compositions are therefore particularly used to
; CC inhibit retroviral replication. The oligoarabinonucleotides can also be
; CC used, in combination with RNase H, as reagents for sequence-specific
; CC cleavage or RNA mapping, and additionally for the study and control of
; CC gene expression in cells. The oligoarabinonucleotides have excellent
; CC affinity for RNA, increased resistance to nucleases and show little if
; CC any non-specific binding to cellular or serum proteins. They target ss
; CC RNA, but not complementary ss DNA, so may be useful for targetting
; CC retroviral genomic RNA to inhibit the early stages of viral replication.
; CC Oligoarabinonucleotides containing pyrimidine bases form triple helices
; CC with significantly higher thermal stability than those produced by
; CC normal oligonucleotides. Sequences AAZ87160-Z87164 represent
; CC oligoarabinonucleotides containing beta-D-arabinose used in an
; CC exemplification of the present invention.
; XX
; SQ Sequence 18 BP; 18 A; 0 C; 0 G; 0 T; 0 other;
;
; AAZ87161 Length: 18 October 16, 2003 08:46 Type: N Check: 1115 ..
aaz87161

Query Match 0.3%; Score 15; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 15; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 5207 AAAAAAAAAAAAAAA 5221
||||||||:|||
Db 3 AAAAAAAAAAAAAAA 15

RESULT 195
aaz87161/c
; TOIG of: aaz87161 check: 1115 from: 1 to: 18
;
; ID AAZ87161 standard; RNA; 18 BP.
; XX
; AC AAZ87161;
; XX
; DT 08-MAY-2000 (first entry)
; XX
; DE Oligoarabinonucleotide SEQ ID NO:2.
; XX
; KW Beta-D-arabinose; antisense; inhibition;
; KW transcription; expression; reverse transcription;
; KW viral replication; RNase H cleavage; triple helix formation; ss.
; XX
; OS Synthetic.
; XX
; FH Key Location/Qualifiers
; FT modified_base 1. .18
; FT /*tag= a
; FT /note= "Ribose moiety replaced by beta-D-arabinose"
; XX
; PN WO9967378 A1.
; XX
; PD 29-DEC-1999.
; XX
; PF 17-JUN-1999; 99WO-CA00571.
; XX
; PR 19-JUN-1998; 98CA-2241361.
; XX
; PA (UYMC-) UNIV MCGILL.
; XX
; PI Damha MJ, Parniak MA, Noronha AM, Wilds C, Borkow G, Arion D;
; XX
; DR WPI; 2000-160584/14.
; XX
; PT Therapeutic composition containing antisense oligonucleotides that
; PT include arabinose sugars, particularly for inhibiting viral replication
; PT -
; XX
; PS Example 1; Page 29; 91pp; English.
; XX

```
; CC   The invention relates to a new composition for selective, sequence-
; CC   specific inhibition of gene transcription and expression in a host. The
; CC   composition comprises oligonucleotides containing arabinose sugars that
; CC   can hybridise to either a a single-stranded (ss) RNA to induce RNase H
; CC   cleavage activity, or to a DNA/DNA or DNA/RNA duplex to form a triple
; CC   helix, thereby inhibiting DNA replication and/or transcription. The
; CC   oligoarabinonucleotides are used for antisense inhibition of gene
; CC   expression or to prevent DNA replication, or reverse transcription of
; CC   RNA by retroviruses. The compositions are therefore particularly used to
; CC   inhibit retroviral replication. The oligoarabinonucleotides can also be
; CC   used, in combination with RNase H, as reagents for sequence-specific
; CC   cleavage or RNA mapping, and additionally for the study and control of
; CC   gene expression in cells. The oligoarabinonucleotides have excellent
; CC   affinity for RNA, increased resistance to nucleases and show little if
; CC   any non-specific binding to cellular or serum proteins. They target ss
; CC   RNA, but not complementary ss DNA, so may be useful for targetting
; CC   retroviral genomic RNA to inhibit the early stages of viral replication.
; CC   Oligoarabinonucleotides containing pyrimidine bases form triple helices
; CC   with significantly higher thermal stability than those produced by
; CC   normal oligonucleotides. Sequences AAZ87160-Z87164 represent
; CC   oligoarabinonucleotides containing beta-D-arabinose used in an
; CC   exemplification of the present invention.
; XX
; SQ   Sequence 18 BP; 18 A; 0 C; 0 G; 0 U; 0 other;
;
;  AAZ87161  Length: 18  October 16, 2003 08:46  Type: N  Check: 1115  ..
aaz87161

  Query Match              0.3%;  Score 15;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4501 TTTTTTTTTTTTTTT 4515
              |||||||||||||||
Db         18 TTTTTTTTTTTTTTT 4

RESULT 196
aaz87162
;  TOIG of: aaz87162  check: 4535  from: 1  to: 18
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; ID   AAZ87162 standard; RNA; 18 BP.
; XX
; AC   AAZ87162;
; XX
; DT   08-MAY-2000  (first entry)
; XX
; DE   Oligoarabinonucleotide SEQ ID NO:3.
; XX
; KW   Beta-D-arabinose; antisense; inhibition;
; KW   transcription; expression; reverse transcription;
; KW   viral replication; RNase H cleavage; triple helix formation; ss.
; XX
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1. .18
; FT                   /*tag=  a
; FT                   /note= "Ribose moiety replaced by beta D-arabinose"
; XX
; PN   WO9967378-A1.
; XX
; PD   29-DEC-1999.
; XX
; PF   17-JUN-1999;   99WO-CA00571.
; XX
; PR   19-JUN-1998;   98CA-2241361.
; XX
; PA   (UYMC-) UNIV MCGILL.
; XX
; PI   Damha MJ,  Parniak MA,  Noronha AM,  Wilds C,  Borkow G,  Arion D;
; XX
; DR   WPI; 2000-160584/14.
; XX
; PT   Therapeutic composition containing antisense oligonucleotides that
; PT   include arabinose sugars, particularly for inhibiting viral replication
; PT   -
; XX
; PS   Example 1; Page 29; 91pp; English.
; XX
; CC   The invention relates to a new composition for selective, sequence-
; CC   specific inhibition of gene transcription and expression in a host. The
; CC   composition comprises oligonucleotides containing arabinose sugars that
; CC   can hybridise to either a a single-stranded (ss) RNA to induce RNase H
; CC   cleavage activity, or to a DNA/DNA or DNA/RNA duplex to form a triple
; CC   helix, thereby inhibiting DNA replication and/or transcription. The
; CC   oligoarabinonucleotides are used for antisense inhibition of gene
; CC   expression or to prevent DNA replication, or reverse transcription of
; CC   RNA by retroviruses. The compositions are therefore particularly used to
; CC   inhibit retroviral replication. The oligoarabinonucleotides can also be
; CC   used, in combination with RNase H, as reagents for sequence-specific
; CC   cleavage or RNA mapping, and additionally for the study and control of
; CC   gene expression in cells. The oligoarabinonucleotides have excellent
; CC   affinity for RNA, increased resistance to nucleases and show little if
; CC   any non-specific binding to cellular or serum proteins. They target ss
; CC   RNA, but not complementary ss DNA, so may be useful for targetting
; CC   retroviral genomic RNA to inhibit the early stages of viral replication.
; CC   Oligoarabinonucleotides containing pyrimidine bases form triple helices
; CC   with significantly higher thermal stability than those produced by
; CC   normal oligonucleotides. Sequences AAZ87160-Z87164 represent
; CC   oligoarabinonucleotides containing beta-D-arabinose used in an
; CC   exemplification of the present invention.
; XX
; SQ   Sequence 18 BP; 0 A; 0 C; 0 G; 18 U; 0 other;
;
;  AAZ87162  Length: 18  October 16, 2003 08:46  Type: N  Check: 4535  ..
aaz87162

  Query Match              0.3%;  Score 15;  DB 1;  Length 18;
  Best Local Similarity   0.0%;  Pred. No. 0;
  Matches    0;  Conservative   15;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4501 TTTTTTTTTTTTTTT 4515
              ::::::::::::::::
Db          1 UUUUUUUUUUUUUUU 15

RESULT 197
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;  TOIG of: aaz87162  check: 4535  from: 1  to: 18
;
; ID   AAZ87162 standard; RNA; 18 BP.
; XX
; AC   AAZ87162;
; XX
; DT   08-MAY-2000  (first entry)
; XX
; DE   Oligoarabinonucleotide SEQ ID NO:3.
; XX
; KW   Beta-D-arabinose; antisense; inhibition;
; KW   transcription; expression; reverse transcription;
; KW   viral replication; RNase H cleavage; triple helix formation; ss.
; XX
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1. .18
; FT                   /*tag=  a
; FT                   /note= "Ribose moiety replaced by beta-D-arabinose"
; XX
; PN   WO9967378-A1.
; XX
; PD   29-DEC-1999.
; XX
; PF   17-JUN-1999;   99WO-CA00571.
; XX
```

```
; PR   19-JUN-1998;   98CA-2241361.
; XX
; PA   (UYMC-) UNIV MCGILL.
; XX
; PI   Damha MJ,  Parniak MA,  Noronha AM,  Wilds C,  Borkow G,  Arion D;
; XX
; DR   WPI; 2000-160584/14.
; XX
; PT   Therapeutic composition containing antisense oligonucleotides that
; PT   include arabinose sugars, particularly for inhibiting viral replication
; PT    -
; XX
; PS   Example 1; Page 29; 91pp; English.
; XX
; CC   The invention relates to a new composition for selective, sequence-
; CC   specific inhibition of gene transcription and expression in a host. The
; CC   composition comprises oligonucleotides containing arabinose sugars that
; CC   can hybridise to either a a single-stranded (ss) RNA to induce RNase H
; CC   cleavage activity, or to a DNA/DNA or DNA/RNA duplex to form a triple
; CC   helix, thereby inhibiting DNA replication and/or transcription. The
; CC   oligoarabinonucleotides are used for antisense inhibition of gene
; CC   expression or to prevent DNA replication, or reverse transcription of
; CC   RNA by retroviruses. The compositions are therefore particularly used to
; CC   inhibit retroviral replication. The oligoarabinonucleotides can also be
; CC   used, in combination with RNase H, as reagents for sequence-specific
; CC   cleavage or RNA mapping, and additionally for the study and control of
; CC   gene expression in cells. The oligoarabinonucleotides have excellent
; CC   affinity for RNA, increased resistance to nucleases and show little if
; CC   any non-specific binding to cellular or serum proteins. They target ss
; CC   RNA, but not complementary ss DNA, so may be useful for targetting
; CC   retroviral genomic RNA to inhibit the early stages of viral replication.
; CC   Oligoarabinonucleotides containing pyrimidine bases form triple helices
; CC   with significantly higher thermal stability than those produced by
; CC   normal oligonucleotides. Sequences AAZ87160-Z87164 represent
; CC   oligoarabinonucleotides containing beta-D-arabinose used in an
; CC   exemplification of the present invention.
; XX
; SQ   Sequence 18 BP; 0 A; 0 C; 0 G; 18 U; 0 other;
;
;  AAZ87162  Length: 18  October 16, 2003 08:46  Type: N  Check: 4535  ..
aaz87162

  Query Match             0.3%;  Score 15;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5207 AAAAAAAAAAAAAAA 5221
              |||||||||||||||
Db         18 AAAAAAAAAAAAAAA 4


RESULT 198
aaz87166
;  TOIG of: aaz87166  check: 4364  from: 1  to: 18
;
; ID   AAZ87166 standard; DNA; 18 BP.
; XX
; AC   AAZ87166;
; XX
; DT   08-MAY-2000  (first entry)
; XX
; DE   Deoxyarabinonucleotide SEQ ID NO:7.
; XX
; KW   2'-deoxy-2'-fluoro-beta-D-arabinose; antisense; inhibition;
; KW   transcription; expression; reverse transcription;
; KW   viral replication; RNase H cleavage; triple helix formation; ss.
; XX
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1. .18
; FT                   /*tag= a
; FT                   /note= "Deoxyribose moiety replaced by 2'-deoxy-2'-
; FT                   fluoro-beta-D-arabinose"
; XX
; PN   WO9967378-A1.
; XX
; PD   29-DEC-1999.
; XX
; PF   17-JUN-1999;   99WO-CA00571.
; XX
; PR   19-JUN-1998;   98CA-2241361.
; XX
; PA   (UYMC-) UNIV MCGILL.
; XX
; PI   Damha MJ,  Parniak MA,  Noronha AM,  Wilds C,  Borkow G,  Arion D;
; XX
; DR   WPI; 2000-160584/14.
; XX
; PT   Therapeutic composition containing antisense oligonucleotides that
; PT   include arabinose sugars, particularly for inhibiting viral replication
; PT    -
; XX
; PS   Example 2; Page 31; 91pp; English.
; XX
; CC   The invention relates to a new composition for selective, sequence
; CC   specific inhibition of gene transcription and expression in a host. The
; CC   composition comprises oligonucleotides containing arabinose sugars that
; CC   can hybridise to either a a single-stranded (ss) RNA to induce RNase H
; CC   cleavage activity, or to a DNA/DNA or DNA/RNA duplex to form a triple
; CC   helix, thereby inhibiting DNA replication and/or transcription. The
; CC   oligoarabinonucleotides are used for antisense inhibition of gene
; CC   expression or to prevent DNA replication, or reverse transcription of
; CC   RNA by retroviruses. The compositions are therefore particularly used to
; CC   inhibit retroviral replication. The oligoarabinonucleotides can also be
; CC   used, in combination with RNase H, as reagents for sequence-specific
; CC   cleavage or RNA mapping, and additionally for the study and control of
; CC   gene expression in cells. The oligoarabinonucleotides have excellent
; CC   affinity for RNA, increased resistance to nucleases and show little if
; CC   any non-specific binding to cellular or serum proteins. They target ss
; CC   RNA, but not complementary ss DNA, so may be useful for targetting
; CC   retroviral genomic RNA to inhibit the early stages of viral replication.
; CC   Oligoarabinonucleotides containing pyrimidine bases form triple helices
; CC   with significantly higher thermal stability than those produced by
; CC   normal oligonucleotides. Sequences AAZ87165-Z87169 represent
; CC   oligodeoxyarabinonucleotides containing 2'-deoxy-2'fluoro-beta-D-
; CC   arabinose used in an exemplification of the present invention.
; XX
; SQ   Sequence 18 BP; 0 A; 0 C; 0 G; 18 T; 0 other;
;
;  AAZ87166  Length: 18  October 16, 2003 08:46  Type: N  Check: 4364  ..
aaz87166

  Query Match             0.3%;  Score 15;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4501 TTTTTTTTTTTTTTT 4515
              |||||||||||||||
Db          1 TTTTTTTTTTTTTTT 15


RESULT 199
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;  TOIG of: aaz87166  check: 4364  from: 1  to: 18
;
; ID   AAZ87166 standard; DNA; 18 BP.
; XX
; AC   AAZ87166;
; XX
; DT   08-MAY-2000  (first entry)
; XX
; DE   Deoxyarabinonucleotide SEQ ID NO:7.
; XX
; KW   2'-deoxy-2'-fluoro-beta-D-arabinose; antisense; inhibition;
; KW   transcription; expression; reverse transcription;
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```
; KW   viral replication; RNase H cleavage; triple helix formation; ss.
; XX
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1. .18
; FT                   /*tag=  a
; FT                   /note= "Deoxyribose moiety replaced by 2'-deoxy-2'-
; FT                          fluoro-beta-D-arabinose"
; XX
; PN   WO9967378-A1.
; XX
; PD   29-DEC-1999.
; XX
; PF   17-JUN-1999;   99WO-CA00571.
; XX
; PR   19-JUN-1998;   98CA-2241361.
; XX
; PA   (UYMC-) UNIV MCGILL.
; XX
; PI   Damha MJ,  Parniak MA,  Noronha AM,  Wilds C,  Borkow G,  Arion D;
; XX
; DR   WPI; 2000-160584/14.
; XX
; PT   Therapeutic composition containing antisense oligonucleotides that
; PT   include arabinose sugars, particularly for inhibiting viral replication
; PT   -
; XX
; PS   Example 2; Page 31; 91pp; English.
; XX
; CC   The invention relates to a new composition for selective, sequence-
; CC   specific inhibition of gene transcription and expression in a host. The
; CC   composition comprises oligonucleotides containing arabinose sugars that
; CC   can hybridise to either a a single-stranded (ss) RNA to induce RNase H
; CC   cleavage activity, or to a DNA/DNA or DNA/RNA duplex to form a triple
; CC   helix, thereby inhibiting DNA replication and/or transcription. The
; CC   oligoarabinonucleotides are used for antisense inhibition of gene
; CC   expression or to prevent DNA replication, or reverse transcription of
; CC   RNA by retroviruses. The compositions are therefore particularly used to
; CC   inhibit retroviral replication. The oligoarabinonucleotides can also be
; CC   used, in combination with RNase H, as reagents for sequence-specific
; CC   cleavage or RNA mapping, and additionally for the study and control of
; CC   gene expression in cells. The oligoarabinonucleotides have excellent
; CC   affinity for RNA, increased resistance to nucleases and show little if
; CC   any non-specific binding to cellular or serum proteins. They target ss
; CC   RNA, but not complementary ss DNA, so may be useful for targetting
; CC   retroviral genomic RNA to inhibit the early stages of viral replication.
; CC   Oligoarabinonucleotides containing pyrimidine bases form triple helices
; CC   with significantly higher thermal stability than those produced by
; CC   normal oligonucleotides. Sequences AAZ87165-Z87169 represent
; CC   oligodeoxyarabinonucleotides containing 2'-deoxy-2'fluoro-beta-D-
; CC   arabinose used in an exemplification of the present invention.
; XX
; SQ   Sequence 18 BP; 0 A; 0 C; 0 G; 18 T; 0 other;
;
;  AAZ87166  Length: 18  October 16, 2003 08:46  Type: N  Check: 4364  ..
aaz87166

  Query Match             0.3%;  Score 15;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5207 AAAAAAAAAAAAAAA 5221
             |||||||||||||||
Db         18 AAAAAAAAAAAAAAA 4


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; ID   AAZ87167 standard; DNA; 18 BP.
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; AC   AAZ87167;
; XX
; DT   08-MAY-2000  (first entry)
; XX
; DE   Deoxyarabinonucleotide SEQ ID NO:6.
; XX
; KW   2'-deoxy-2'-fluoro-beta-D-arabinose; antisense; inhibition;
; KW   transcription; expression; reverse transcription;
; KW   viral replication; RNase H cleavage; triple helix formation; ss.
; XX
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1. .18
; FT                   /*tag=  a
; FT                   /note= "Deoxyribose moiety replaced by 2'-deoxy-2'
; FT                          fluoro-beta-D-arabinose"
; XX
; PN   WO9967378-A1.
; XX
; PD   29-DEC-1999.
; XX
; PF   17-JUN-1999;   99WO-CA00571.
; XX
; PR   19-JUN-1998;   98CA-2241361.
; XX
; PA   (UYMC-) UNIV MCGILL.
; XX
; PI   Damha MJ,  Parniak MA,  Noronha AM,  Wilds C,  Borkow G,  Arion D;
; XX
; DR   WPI; 2000-160584/14.
; XX
; PT   Therapeutic composition containing antisense oligonucleotides that
; PT   include arabinose sugars, particularly for inhibiting viral replication
; PT
; XX
; PS   Example 2; Page 31; 91pp; English.
; XX
; CC   The invention relates to a new composition for selective, sequence-
; CC   specific inhibition of gene transcription and expression in a host. The
; CC   composition comprises oligonucleotides containing arabinose sugars that
; CC   can hybridise to either a a single-stranded (ss) RNA to induce RNase H
; CC   cleavage activity, or to a DNA/DNA or DNA/RNA duplex to form a triple
; CC   helix, thereby inhibiting DNA replication and/or transcription. The
; CC   oligoarabinonucleotides are used for antisense inhibition of gene
; CC   expression or to prevent DNA replication, or reverse transcription of
; CC   RNA by retroviruses. The compositions are therefore particularly used to
; CC   inhibit retroviral replication. The oligoarabinonucleotides can also be
; CC   used, in combination with RNase H, as reagents for sequence-specific
; CC   cleavage or RNA mapping, and additionally for the study and control of
; CC   gene expression in cells. The oligoarabinonucleotides have excellent
; CC   affinity for RNA, increased resistance to nucleases and show little if
; CC   any non-specific binding to cellular or serum proteins. They target ss
; CC   RNA, but not complementary ss DNA, so may be useful for targetting
; CC   retroviral genomic RNA to inhibit the early stages of viral replication.
; CC   Oligoarabinonucleotides containing pyrimidine bases form triple helices
; CC   with significantly higher thermal stability than those produced by
; CC   normal oligonucleotides. Sequences AAZ87165-Z87169 represent
; CC   oligodeoxyarabinonucleotides containing 2'-deoxy-2'fluoro-beta D-
; CC   arabinose used in an exemplification of the present invention.
; XX
; SQ   Sequence 18 BP; 18 A; 0 C; 0 G; 0 U; 0 other;
;
;  AAZ87167  Length: 18  October 16, 2003 08:46  Type: N  Check: 1115  ..
aaz87167

  Query Match             0.3%;  Score 15;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5207 AAAAAAAAAAAAAAA 5221
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Db          1 AAAAAAAAAAAAAAA 15
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```
RESULT 201
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;  TOIG of: aaz87167  check: 1115  from: 1  to: 18
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; ID   AAZ87167 standard; DNA; 18 BP.
; XX
; AC   AAZ87167;
; XX
; DT   08-MAY-2000  (first entry)
; XX
; DE   Deoxyarabinonucleotide SEQ ID NO:8.
; XX
; KW   2'-deoxy-2'-fluoro-beta-D-arabinose; antisense; inhibition;
; KW   transcription; expression; reverse transcription;
; KW   viral replication; RNase H cleavage; triple helix formation; ss.
; XX
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1..18
; FT                   /*tag=  a
; FT                   /note= "Deoxyribose moiety replaced by 2'-deoxy 2'-
; FT                          fluoro-beta-D-arabinose"
; XX
; PN   WO9967378-A1.
; XX
; PD   29-DEC-1999.
; XX
; PF   17-JUN 1999;   99WO-CA00571.
; XX
; PR   19-JUN-1998;   98CA-2241361.
; XX
; PA   (UYMC-) UNIV MCGILL.
; XX
; PI   Damha MJ,  Parniak MA,  Noronha AM,  Wilds C,  Berkow G,  Arion D;
; XX
; DR   WPI; 2000-160584/14.
; XX
; PT   Therapeutic composition containing antisense oligonucleotides that
; PT   include arabinose sugars, particularly for inhibiting viral replication
; PT   -
; XX
; PS   Example 2; Page 31; 91pp; English.
; XX
; CC   The invention relates to a new composition for selective, sequence-
; CC   specific inhibition of gene transcription and expression in a host. The
; CC   composition comprises oligonucleotides containing arabinose sugars that
; CC   can hybridise to either a a single-stranded (ss) RNA to induce RNase H
; CC   cleavage activity, or to a DNA/DNA or DNA/RNA duplex to form a triple
; CC   helix, thereby inhibiting DNA replication and/or transcription. The
; CC   oligoarabinonucleotides are used for antisense inhibition of gene
; CC   expression or to prevent DNA replication, or reverse transcription of
; CC   RNA by retroviruses. The compositions are therefore particularly used to
; CC   inhibit retroviral replication. The oligoarabinonucleotides can also be
; CC   used, in combination with RNase H, as reagents for sequence-specific
; CC   cleavage or RNA mapping, and additionally for the study and control of
; CC   gene expression in cells. The oligoarabinonucleotides have excellent
; CC   affinity for RNA, increased resistance to nucleases and show little if
; CC   any non-specific binding to cellular or serum proteins. They target ss
; CC   RNA, but not complementary ss DNA, so may be useful for targetting
; CC   retroviral genomic RNA to inhibit the early stages of viral replication.
; CC   Oligoarabinonucleotides containing pyrimidine bases form triple helices
; CC   with significantly higher thermal stability than those produced by
; CC   normal oligonucleotides. Sequences AAZ87165-Z87169 represent
; CC   oligodeoxyarabinonucleotides containing 2'-deoxy-2'fluoro-beta-D-
; CC   arabinose used in an exemplification of the present invention.
; XX
; SQ   Sequence 18 BP; 18 A; 0 C; 0 G; 0 U; 0 other;
;
;  AAZ87167  Length: 18  October 16, 2003 08:46  Type: N  Check: 1115  ..
aaz87167

  Query Match             0.3%;  Score 15;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4501 TTTTTTTTTTTTTTT 4515
             ||||:|||| ||:|||
Db         18 TTTTTTTTTTTTTTT 4


RESULT 202
aah63154
;  TOIG of: aah63154  check: 1656  from: 1  to: 18
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; ID   AAH63154 standard; DNA; 18 BP.
; XX
; AC   AAH63154;
; XX
; DT   11-SEP 2001  (first entry)
; XX
; DE   Shrimp white spot Bacilliform virus (WSBV) oligonucleotide 215.
; XX
; KW   Shrimp white spot Bacilliform virus; WSBV; diagnosis; viral infection;
; KW   antiviral agent; gene expression; antisense construct; probe; primer;
; KW   transgenic viral resistant shrimp; ss.
; XX
; OS   White spot syndrome virus.
; XX
; PN   WO200138351-A2.
; XX
; PD   31-MAY-2001.
; XX
; PF   08-NOV 2000; 2000WO-US30888
; XX
; PR   24-NOV-1999;   99CN-01247??.
; XX
; PA   (PENY-) PE CORP NY.
; PA   (THIR-) THIRD INST OCEANOGRAPHY STATE OCEANI C A.
; PA   (SINO-) SINOGENOMAX CO LTD.
; XX
; PI   Xu X,  Yang F,  He J,  Pham L,  He M,  Ye Y,  Shen Y,  Kodira C;
; XX
; DR   WPI; 2001-355877/37.
; XX
; PT   Primary nucleotide sequence of the shrimp white spot Bacilliform virus
; PT   (WSBV), useful for producing viral polypeptides that can be used to
; PT   screen for agents that are useful for treating WSBV infection
; XX
; PS   Disclosure; Figure 3; 626pp; English.
; XX
; CC   The invention provides the primary nucleotide sequence of the WSBV genome
; CC   (AAH62689), predicted transcript sequences (AAH62689-AAH62839) and
; CC   encoded proteins (AAG84913-AAG85051) and oligonucleotide sequences
; CC   (AAH62840-63160) suitable for use as primers or probes. The nucleic acid
; CC   molecules and proteins of the invention are useful for diagnosis and
; CC   monitoring viral infection, in screens for antiviral agents and for
; CC   monitoring viral gene expression or activity during a treatment regimen.
; CC   The nucleic acid molecules are also useful as antisense constructs to
; CC   control viral gene expression in infected cells and tissues and to create
; CC   transgenic viral resistant shrimp.
; XX
; SQ   Sequence 18 BP; 6 A; 9 C; 0 G; 3 T; 0 other;
;
;  AAH63154  Length: 18  October 16, 2003 08:46  Type: N  Check: 1656  ..
aah63154

  Query Match             0.3%;  Score 14.8;  DB 1;  Length 18;
  Best Local Similarity   88.9%;  Pred. No. 0;
  Matches   16;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1124 TTCCACAACTACCACCAC 1141
              ||||:|||  |||| ||
Db          1 TTCCACAACCACCACTAC 18
```

```
RESULT 203
aai72706/c
;  TOIG of: aai72706  check: 2347  from: 1  to: 18
;
; ID   AAI72706 standard; DNA; 18 BP.
; XX
; AC   AAI72706;
; XX
; DT   03-JUL-2002  (first entry)
; XX
; DE   Fragment #2 of Human c-myc antisense sequence.
; XX
; KW   Antisense; analyte molecule; AM; probe; complementary region;
; KW   c-myc; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO200218656-A2.
; XX
; PD   07-MAR-2002.
; XX
; PF   30-AUG-2001; 2001WO-US27129.
; XX
; PR   30-AUG-2000; 2000US-229245P.
; XX
; PA   (AVIB-) AVI BIOPHARMA INC.
; XX
; PI   Weller DD,  Reddy TM;
; XX
; DR   WPI; 2002-362184/39.
; XX
; PT   Analyzing a population of oligomeric analyte molecules e.g. morpholino
; PT   oligomers, peptide nucleic acids, by resolving duplexes of such
; PT   molecules with complementary or near-complementary DNA or charged DNA
; PT   analogs -
; XX
; PS   Disclosure; Fig 3; 37pp; English.
; XX
; CC   The sequences given in AAI72704-13 are antisense oligonucleotides
; CC   which were used in the method of the invention.  The method of the
; CC   invention comprises analysing a population of oligomeric analyte
; CC   molecules (AMs) composed of linked subunits of which at least 50%
; CC   are uncharged, by applying a mixture of AMs and probe molecules to
; CC   a charge-bearing separation medium, so that complementary or near-
; CC   complementary regions of probe and at least one AM are hybridized to
; CC   form a mixture of species and separating the species within the
; CC   medium. The method is useful for analysing populations of oligomeric
; CC   analyte molecules such as peptide nucleic acids, phosphotriester
; CC   oligonucleotides, methylphosphonate oligonucleotides, morpholino
; CC   oligomers and chimeras of any member of this group with another member
; CC   of with DNA, 2'-O-alkyl RNA or 2'-O-allyl RNA, in particular morpholino
; CC   oligomers having intersubunit linkages such as phosphoramidate and
; CC   phosphorodiamidate (claimed). The method is suitable for separating,
; CC   detecting, quantitating and/or isolating predominantly uncharged
; CC   oligonucleotide analogues.  This sequence represents a fragment of
; CC   AAI72704 which is antisense to nucleotides 2551-2570 of the human
; CC   c-myc sequence given in Genbank Acc. No. X00196.  This fragment is
; CC   uncharged.
; XX
; SQ   Sequence 18 BP; 3 A; 4 C; 7 G; 4 T; 0 other;
;
;  AAI72706  Length: 18  October 16, 2003 08:46  Type: N  Check: 2347  ..
aai72706

  Query Match             0.3%;  Score 14.8;  DB 1;  Length 18;
  Best Local Similarity   88.9%;  Pred. No. 0;
  Matches   16;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        343 GACGATGCCCCTCTACTT 360
              ||||||||||||| || |
Db         18 GACGATGCCCCTCAACGT 1


RESULT 204
aaq37744/c
;  TOIG of: aaq37744  check: 2437  from: 1  to: 18
;
; ID   AAQ37744 standard; DNA; 18 BP.
; XX
; AC   AAQ37744;
; XX
; DT   17-DEC-2001  (updated)
; DT   30-JUN-1993  (first entry)
; XX
; DE   Human c-myc anti-sense oligodeoxynucleotide #2.
; XX
; KW   Cellular division cycle; cdc; ss.
; XX
; OS   Synthetic.
; XX
; PN   USN7821415-N.
; XX
; PD   01-JAN-1993.
; XX
; PF   14-JAN-1992;   92US-0821415.
; XX
; PR   14-JAN-1992;   92US-0821415.
; XX
; PA   (USSH ) US DEPT HEALTH & HUMAN SERVICE.
; XX
; PI   Epstein S,  Speir E,  Unger E;
; XX
; DR   WPI; 1993-085860/10.
; XX
; PT   Inhibition of re-stenosis of blood vessel - after mechanical
; PT   treatment, to reduce stenosis, using anti-sense oligonucleotide(s)
; XX
; PS   Disclosure; Page 34; 41pp; English.
; XX
; CC   The sequence is that of c-myc antisense oligonucleotide #2 which
; CC   may be used for inhibiting translation of cellular division cycle
; CC   (cdc) gene products. It may be used in a method of inhibiting
; CC   restenosis of a mammalian blood vessel after mechanical treatment
; CC   to reduce a stenosis, e.g. coronary balloon angioplasty. It is
; CC   targetted to the region of the initiation codon of c-myc mRNA and
; CC   it inhibited smooth muscle cell proliferation in a concn. dependent
; CC   manner.
; CC   (Note: Revised entry submitted to correct the patent number format of
; CC   US Government-owned NTIS applications to prevent clashes with ongoing US
; CC   granted patent numbers. For further information please visit the Derwent
; CC   web site at www.derwent.com/dwpi/updates/ntis_us.html.)
; XX
; SQ   Sequence 18 BP; 3 A; 4 C; 7 G; 4 T; 0 other;
;
;  AAQ37744  Length: 18  October 16, 2003 08:46  Type: N  Check: 2437  ..
aaq37744

  Query Match             0.3%;  Score 14.8;  DB 1;  Length 18;
  Best Local Similarity   88.9%;  Pred. No. 0;
  Matches   16;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        344 ACGATGCCCCTCTACTTG 361
              ||||||||||||| || ||
Db         18 ACGATGCCCCTCAACGTG 1


RESULT 205
aav21969
;  TOIG of: aav21969  check: 2834  from: 1  to: 18
;
; ID   AAV21969 standard; DNA; 18 BP.
; XX
; AC   AAV21969;
; XX
```

```
; DT   14-JUL-1998  (first entry)
; XX
; DE   Nuclease resistant antisense oligo NBT 142 targeted against (TC)9.
; XX
; KW   Nuclease resistant; bacterial infection; antibiotic; target;
; KW   veterinary medicine; treatment; human; industrial process;
; KW   bacterial control; ss.
; XX
; OS   Synthetic.
; XX
; PN   WO9803533-A1.
; XX
; PD   29-JAN-1998.
; XX
; PF   23-JUL-1997;   97WO-US12961.
; XX
; PR   24-JUL-1996;   96US-0685575.
; XX
; PA   (OLIG-) OLIGOS ETC & OLIGOS THERAPEUTICS INC.
; XX
; PI   Arrow A,  Dale RMK,  Thompson TL;
; XX
; DR   WPI; 1998-120687/11.
; XX
; PT   Treating bacterial infections in humans or animals with
; PT   oligo:nucleotide(s) - resistant to nuclease and targetted to
; PT   bacterial nucleic acid or proteins, also conjugates of these
; PT   oligo:nucleotide(s) with antibiotics
; XX
; PS   Claim 49; Page 87; 163pp; English.
; XX
; CC   This antisense oligonucleotide is nuclease resistant and can be used in
; CC   the treatment of animals, including humans, having a bacterial infection.
; CC   The treatment comprises administration of such nuclease resistant
; CC   oligonucleotides, targeted to a nucleic acid or protein of the bacterium,
; CC   and formulated with a carrier. A compound comprising this nuclease
; CC   resistant oligonucleotide can be covalently linked to an antibiotic. The
; CC   method is used to treat infections by a wide variety of Gram-positive and
; CC   Gram-negative, or acid-fast, bacteria, in human and veterinary medicine.
; CC   The methods are particularly used in immuno-compromised individuals
; CC   (e.g. patients with acquired immunodeficiency syndrome or those receiving
; CC   chemotherapy or radiation therapy), optionally in combination with, or
; CC   fused to, antiviral or other antimicrobial oligonucleotides. Apart from
; CC   therapeutic use, the oligonucleotides can be used to control bacteria
; CC   in laboratory cultures, foods, beverages and industrial processes. The
; CC   oligonucleotides are specific for bacteria, without affecting metabolism
; CC   in mammalian cells. They may also activate RNase H and have a general,
; CC   non-specific immune-stimulating effect. The oligonucleotides can be
; CC   administered orally, intranasally, rectally, topically or by injection,
; CC   optionally coupled to an agent (e.g. carbohydrate or polyamine) that
; CC   enhances cellular uptake.
; XX
; SQ   Sequence 18 BP; 0 A; 9 C; 0 G; 9 T; 0 other;
;
;  AAV21969  Length: 18  October 16, 2003 08:46  Type: N  Check: 2834  ..
aav21969

  Query Match             0.3%;  Score 14.8;  DB 1;  Length 18;
  Best Local Similarity   88.9%;  Pred. No. 0;
  Matches   16;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       3182 TCTCTCTCCCTCCCTCTC 3199
              ||||||||  ||| |||||
Db          1 TCTCTCTCTCTCTCTCTC 18


RESULT 206
aav30103/c
;  TOIG of: aav30103  check: 2437  from: 1  to: 18
;
; ID   AAV30103 standard; DNA; 18 BP.
; XX
; AC   AAV30103;
; XX
; DT   25-MAR-2003  (updated)
; DT   11-AUG-1998  (first entry)
; XX
; DE   Antisense oligonucleotide targeted against the human c-myc gene.
; XX
; KW   Human; c-myc gene; inhibition; growth; smooth muscle cell; migration;
; KW   restenosis; blood vessel; reduction; stenosis;
; KW   antisense oligonucleotide; cardiac angioplasty; ss.
; XX
; OS   Synthetic.
; OS   Homo sapiens.
; XX
; PN   US5756476-A.
; XX
; PD   26-MAY-1998.
; XX
; PF   26-JAN-1994;   94US-0187785.
; XX
; PR   14-JAN-1992;   92US-0820415.
; XX
; PA   (USSH ) US DEPT HEALTH & HUMAN SERVICES.
; XX
; PI   Epstein SE,  Speir EH,  Unger EF;
; XX
; DR   WPI; 1998-321578/28.
; XX
; PT   Inhibition of smooth-muscle cell proliferation, especially
; PT   restenosis - comprises contacting cells with antisense
; PT   oligonucleotides of c-myc gene product
; XX
; PS   Example 1; Columns 31-32; 23pp; English.
; XX
; CC   The present sequence represents an antisense oligonucleotide directed
; CC   against the human c-myc gene. The specification describes methods for
; CC   inhibiting the growth of a human smooth muscle cell, inhibiting the
; CC   migration of a human smooth muscle cell and inhibiting restenosis of a
; CC   blood vessel in a human after mechanical treatment to the vessel to
; CC   reduce stenosis. The methods comprise contacting the cell or vessel
; CC   with a synthetic antisense oligonucleotide directed against a c-myc
; CC   gene product. The antisense oligonucleotides are used for inhibiting
; CC   restenosis after cardiac angioplasty.
; CC   (Updated on 25-MAR-2003 to correct PF field.)
; CC   (Updated on 25-MAR-2003 to correct PR field.)
; XX
; SQ   Sequence 18 BP; 3 A; 4 C; 7 G; 4 T; 0 other;
;
;  AAV30103  Length: 18  October 16, 2003 08:46  Type: N  Check: 2437  ..
aav30103

  Query Match             0.3%;  Score 14.8;  DB 1;  Length 18;
  Best Local Similarity   88.9%;  Pred. No. 0;
  Matches   16;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        344 ACGATGCCCCTCTACTTG 361
              ||||||||||'|| |'  |
Db         18 ACGATGCCCCTCAAGGTG 1


RESULT 207
aaq83416/c
;  TOIG of: aaq83416  check: 225  from: 1  to: 16
;
; ID   AAQ83416 standard; DNA; 16 BP.
; XX
; AC   AAQ83416;
; XX
; DT   25-MAR-2003  (updated)
; DT   20-SEP 1995  (first entry)
; XX
; DE   c-fos antisense oligonucleotide.
; XX
; KW   c-jun; c-fos; jun-B; neuronal injury; cell death; neoplasm;
```

; KW antisense; phosphorothioate; ss.
; XX
; OS Synthetic.
; XX
; PN WO9502051-A2.
; XX
; PD 19-JAN-1995.
; XX
; PF 06-JUL-1994; 94WO-EP02218.
; XX
; PR 10-JUL-1993; 93EP-0111059.
; XX
; PA (BIOG-) BIOGNOSTIK GES BIOMOLEKULARE DIAGNOSTIK.
; XX
; PI Brysch W, Schlingensiepen G, Schlingensiepen K, Schlingensiepen R;
; XX
; DR WPI; 1995-066896/09.
; XX
; PT Use of antisense c-jun, c-fos or jun-B nucleic acids - for
; PT preventing and treating neuronal injury, degeneration, cell death
; PT and/or neoplasms
; XX
; PS Claim 2; Page 61; 86pp; English.
; XX
; CC Antisense nucleic acid hybridising with an area of the mRNA and/or
; CC DNA comprising the genes c-jun, jun-B or c-fos, expression of which
; CC plays a causal role in neuronal injury, degeneration, cell death and/
; CC or neoplasms, can be used to prevent and treat such conditions.
; CC c-jun antisense sequences are described in AAQ83267-321 and AAQ83440-43;
; CC jun-B antisense sequences are described in AAQ83322-63 and AAQ83444-45;
; CC and c-fos antisense sequences are described in AAQ83364-439 and
; CC AAQ83446- 51. Preferably the antisense sequences are phosphorothioate
; CC oligonucleotides since these are not destroyed as fast by endogenous
; CC factors as naturally occuring molecules.
; CC (Updated on 25-MAR-2003 to correct PN field.)
; XX
; SQ Sequence 16 BP; 3 A; 6 C; 1 G; 6 T; 0 other;
;
; AAQ83416 Length: 16 October 16, 2003 08:46 Type: N Check: 225 ..
aaq83416

Query Match 0.3%; Score 14.4; DB 1; Length 16;
Best Local Similarity 93.8%; Pred. No. 0;
Matches 15; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 2314 AGTAATAAGATGGCTG 2329
|| ||||||||||||||
Db 16 AGGAATAAGATGGCTG 1

RESULT 208
aaa25445
; TOIG of: aaa25445 check: 2711 from: 1 to: 17
;
; ID AAA25445 standard; DNA; 17 BP.
; XX
; AC AAA25445;
; XX
; DT 19-JUL-2000 (first entry)
; XX
; DE Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1943.
; XX
; KW Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
; KW hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
; KW gene expression modification; cancer; phosphorothioate; endonuclease;
; KW anticancer; breast cancer; endometrium cancer; ss.
; XX
; OS Homo sapiens.
; XX
; PN WO9954459-A2.
; XX
; PD 28-OCT-1999.
; XX
; PF 19-APR-1999; 99WO-US08547.
; XX
; PR 20-APR-1998; 98US-0082404.
; PR 23-JUN-1998; 98US-0103636.
; XX
; PA (RIBO-) RIBOZYME PHARM INC.
; XX
; PI Thompson JD, Beigelman L, McSwiggen JA, Karpeisky A, Bellon L;
; PI Reynolds M, Zwick M, Jarvis T, Woolf T, Haeberli P;
; PI Matulic-Adamic J;
; XX
; DR WPI; 2000-013248/01.
; XX
; PT New nucleic acids that interact, and optionally cleave, target
; PT sequences, used to treat cancer -
; XX
; PS Claim 77; Page 79; 148pp; English.
; XX
; CC The present invention describes nucleic acids (A) that interact stably
; CC with a target sequence and contain at least one phosphoro(di)thioate
; CC link, having endonuclease activity. (A), and more generally any
; CC catalytic nucleic acid (A') that modulates expression of the oestrogen
; CC receptor gene, are used to treat cancer (particularly of breast or
; CC endometrium), in vivo or by transforming cells ex vivo and implanting
; CC treated cells, or for other conditions associated with levels of
; CC oestrogen receptor. Because of the high selectivity for targeted RNA, (A)
; CC can also be used to correlate inhibition of gene expression with
; CC alterations in phenotype, particularly for identification of therapeutic
; CC targets, and as research reagents (for RNA, in the same way that
; CC restriction endonucleases are used with DNA). The combination of
; CC modifications in (A) improves resistance to nucleases, binding affinity
; CC and/or activity. AAA23503 to AAA24747 represent oestrogen receptor
; CC hammerhead ribozyme sequences, and AAA24748 to AAA25992 represent their
; CC corresponding target sequences. AAA25993 to AAA26105 represent oestrogen
; CC receptor hairpin ribozyme sequences, and AAA26107 to AAA26218 represent
; CC their corresponding target sequences. AAA26219 to AAA26271 represent
; CC other ribozyme sequences and antisense oligonucleotides used in the
; CC exemplification of the present invention.
; XX
; SQ Sequence 17 BP; 1 A; 0 C; 1 G; 15 T; 0 other;
;
; AAA25445 Length: 17 October 16, 2003 08:46 Type: N Check: 2711 ..
aaa25445

Query Match 0.3%; Score 14.4; DB 1; Length 17;
Best Local Similarity 93.8%; Pred. No. 0;
Matches 15; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 4497 TAAGTTTTTTTTTTTT 4512
| ||||||||||||||
Db 2 TTAGTTTTTTTTTTTT 17

RESULT 209
aaa25453/c
; TOIG of: aaa25453 check: 2334 from: 1 to: 17
;
; ID AAA25453 standard; DNA; 17 BP.
; XX
; AC AAA25453;
; XX
; DT 19-JUL-2000 (first entry)
; XX
; DE Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1951.
; XX
; KW Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
; KW hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
; KW gene expression modification; cancer; phosphorothioate; endonuclease;
; KW anticancer; breast cancer; endometrium cancer; ss.
; XX
; OS Homo sapiens.
; XX
; PN WO9954459-A2.

```
; XX
; PD   28-OCT-1999.
; XX
; PF   19-APR-1999;   99WO-US08547.
; XX
; PR   20-APR-1998;   98US-0082404.
; PR   23-JUN-1998;   98US-0103636.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC.
; XX
; PI   Thompson JD, Beigelman L, McSwiggen JA, Karpeisky A, Bellon L;
; PI   Reynolds M, Zwick M, Jarvis T, Woolf T, Haeberli P;
; PI   Matulic-Adamic J;
; XX
; DR   WPI; 2000-013248/01.
; XX
; PT   New nucleic acids that interact, and optionally cleave, target
; PT   sequences, used to treat cancer
; XX
; PS   Claim 77; Page 79; 148pp; English.
; XX
; CC   The present invention describes nucleic acids (A) that interact stably
; CC   with a target sequence and contain at least one phosphoro(di)thioate
; CC   link, having endonuclease activity. (A), and more generally any
; CC   catalytic nucleic acid (A') that modulates expression of the oestrogen
; CC   receptor gene, are used to treat cancer (particularly of breast or
; CC   endometrium), in vivo or by transforming cells ex vivo and implanting
; CC   treated cells, or for other conditions associated with levels of
; CC   oestrogen receptor. Because of the high selectivity for targeted RNA, (A)
; CC   can also be used to correlate inhibition of gene expression with
; CC   alterations in phenotype, particularly for identification of therapeutic
; CC   targets, and as research reagents (for RNA, in the  same way that
; CC   restriction endonucleases are used with DNA). The combination of
; CC   modifications in (A) improves resistance to nucleases, binding affinity
; CC   and/or activity. AAA23503 to AAA24747 represent oestrogen receptor
; CC   hammerhead ribozyme sequences, and AAA24748 to AAA25992 represent their
; CC   corresponding target sequences. AAA25993 to AAA26105 represent oestrogen
; CC   receptor hairpin ribozyme sequences, and AAA26107 to AAA26218 represent
; CC   their corresponding target sequences. AAA26219 to AAA26271 represent
; CC   other ribozyme sequences and antisense oligonucleotides used in the
; CC   exemplification of the present invention.
; XX
; SQ   Sequence 17 BP; 1 A; 0 C; 1 G; 15 T; 0 other;
;
;  AAA25453  Length: 17  October 16, 2003 08:46  Type: N  Check: 2334  ..
aaa25453

  Query Match             0.3%;  Score 14.4;  DB 1;  Length 17;
  Best Local Similarity   93.8%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       5206 TAAAAAAAAAAAAAAA 5221
              || ||||||||||||||
Db         17 TACAAAAAAAAAAAAA 2


RESULT 210
aaa25454/c
;  TOIG of: aaa25454  check: 2366  from: 1  to: 17
;
; ID   AAA25454 standard; DNA; 17 BP.
; XX
; AC   AAA25454;
; XX
; DT   19-JUL-2000  (first entry)
; XX
; DE   Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1952.
; XX
; KW   Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
; KW   hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
; KW   gene expression modification; cancer; phosphorothioate; endonuclease;
; KW   anticancer; breast cancer; endometrium cancer; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO9954459-A2.
; XX
; PD   28-OCT-1999.
; XX
; PF   19-APR-1999;   99WO-US08547.
; XX
; PR   20-APR-1998;   98US-0082404.
; PR   23-JUN-1998;   98US-0103636.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC.
; XX
; PI   Thompson JD, Beigelman L, McSwiggen JA, Karpeisky A, Bellon L;
; PI   Reynolds M, Zwick M, Jarvis T, Woolf T, Haeberli P;
; PI   Matulic-Adamic J;
; XX
; DR   WPI; 2000-013248/01.
; XX
; PT   New nucleic acids that interact, and optionally cleave, target
; PT   sequences, used to treat cancer
; XX
; PS   Claim 77; Page 79; 148pp; English.
; XX
; CC   The present invention describes nucleic acids (A) that interact stably
; CC   with a target sequence and contain at least one phosphoro(di)thioate
; CC   link, having endonuclease activity. (A), and more generally any
; CC   catalytic nucleic acid (A') that modulates expression of the oestrogen
; CC   receptor gene, are used to treat cancer (particularly of breast or
; CC   endometrium), in vivo or by transforming cells ex vivo and implanting
; CC   treated cells, or for other conditions associated with levels of
; CC   oestrogen receptor. Because of the high selectivity for targeted RNA, (A)
; CC   can also be used to correlate inhibition of gene expression with
; CC   alterations in phenotype, particularly for identification of therapeutic
; CC   targets, and as research reagents (for RNA, in the  same way that
; CC   restriction endonucleases are used with DNA). The combination of
; CC   modifications in (A) improves resistance to nucleases, binding affinity
; CC   and/or activity. AAA23503 to AAA24747 represent oestrogen receptor
; CC   hammerhead ribozyme sequences, and AAA24748 to AAA25992 represent their
; CC   corresponding target sequences. AAA25993 to AAA26105 represent oestrogen
; CC   receptor hairpin ribozyme sequences, and AAA26107 to AAA26218 represent
; CC   their corresponding target sequences. AAA26219 to AAA26271 represent
; CC   other ribozyme sequences and antisense oligonucleotides used in the
; CC   exemplification of the present invention.
; XX
; SQ   Sequence 17 BP; 1 A; 0 C; 1 G; 15 T; 0 other;
;
;  AAA25454  Length: 17  October 16, 2003 08:46  Type: N  Check: 2366  ..
aaa25454

  Query Match             0.3%;  Score 14.4;  DB 1;  Length 17;
  Best Local Similarity   93.8%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       5206 TAAAAAAAAAAAAAAA 5221
              || ||||||||||||||
Db         16 TACAAAAAAAAAAAAA 1


RESULT 211
abk02864/c
;  TOIG of: abk02864  check: 1263  from: 1  to: 17
;
; ID   ABK02864 standard; RNA; 17 BP.
; XX
; AC   ABK02864;
; XX
; DT   12-MAR-2002  (first entry)
; XX
; DE   Human CD20 Hammerhead ribozyme #163.
; XX
; KW   Human; ss; antisense therapy; cytostatic; antiinflammatory; haemostatic;
; KW   cerebroprotective; nootropic; neuroprotective, antiparkinsonian,
```

; KW muscular; CD20; neurite growth inhibitor gene; NOGO; hammerhead ribozyme;
; KW DNAzyme; inozyme; G-cleaver; amberzyme; zinzyme; lymphoma; leukaemia;
; KW B-cell lymphoma; non-Hodgkin's lymphoma; NHL; lymphocytic leukaemia;
; KW human immunodeficiency virus; HIV associated NHL; mantle cell lymphoma;
; KW MCL; immunocytoma; IMC; immune thrombocytopaenia; stroke; dementia;
; KW inflammatory arthropathy; central nervous system injury;
; KW cerebrovascular accident; CVA; Alzheimer's disease; multiple sclerosis;
; KW chemotherapy-induced neuropathy; amyotrophic lateral sclerosis; ALS;
; KW Parkinson's disease; ataxia; Huntington's disease;
; KW Creutzfeldt-Jakob disease; muscular dystrophy; neurodegenerative disease.
; XX
; OS Homo sapiens.
; OS Synthetic.
; XX
; PN WO200159103-A2.
; XX
; PD 16-AUG-2001.
; XX
; PF 09-FEB-2001; 2001WO-US04273.
; XX
; PR 11-FEB-2000; 2000US-181797P.
; PR 28-FEB-2000; 2000US-185516P.
; PR 06-MAR-2000; 2000US-187128P.
; XX
; PA (RIBO-) RIBOZYME PHARM INC.
; PA (BLAT/) BLATT L.
; PA (MCSW/) MCSWIGGEN J.
; PA (CHOW/) CHOWRIRA B M.
; XX
; PI Blatt L, McSwiggen J, Chowrira BM;
; XX
; DR WPI; 2001-607195/69.
; XX
; PT Nucleic acid molecules, e.g., enzymatic nucleic acids and antisense
; PT constructs, which down regulate expression of a CD20 gene or neurite
; PT growth inhibitor gene useful for treating, e.g., lymphoma, leukemia,
; PT and central nervous system injury -
; XX
; PS Claim 30; Page 142; 200pp; English.
; XX
; CC The invention relates to a nucleic acid molecule which down regulates
; CC expression of a CD20 gene and a nucleic acid molecule which down
; CC regulates expression of a neurite growth inhibitor gene (NOGO).
; CC The nucleic acids may be enzymatic nucleic acids (e.g. a ribozyme or a
; CC DNAzyme) an Inozyme (an endolytic nucleic acid cleaving a an RNA molecule
; CC possessing an NCH motif), a G-cleaver (cleaving RNA with a NYN
; CC motif) pr an amberzyme (cleaving RNA with an NGN triplet), a zinzyme
; CC (cleaving RNA with a YGY motif). The CD20-targetting nucleic acid is used
; CC to cleave RNA of CD20 in the presence of a divalent cation that is
; CC preferably Mg^2^+. Furthermore, it may be contacted with a cell to reduce
; CC CD20 activity of the cell and treat a patient having a condition
; CC associated with the level of CD20. The treatment may further comprise the
; CC use of one or more therapies. In particular, the CD20 targetting
; CC nucleic acid may be used to treat lymphoma, leukaemia, B-cell
; CC lymphoma, low-grade or follicular non-Hodgkin's lymphoma (NHL), bulky
; CC low-grade or follicular NHL, lymphocytic leukaemia, HIV (human
; CC immunodeficiency virus) associated NHL, mantle-cell lymphoma (MCL),
; CC immunocytoma (IMC), small B-cell lymphocytic lymphoma, immune
; CC thrombocytopaenia, and inflammatory arthropathy. The NOGO-targetting
; CC nucleic acid is used to cleave RNA of the NOGO gene in the presence of a
; CC divalent cation that is preferably Mg^2^+. Furthermore, the nucleic acid
; CC may be contacted with a cell to reduce NOGO activity of the cell and
; CC treat a patient having a condition associated with the level of NOGO. The
; CC treatment may further comprise the use of one or more therapies.
; CC In particular, the NOGO-targetting nucleic acid may be used to treat
; CC central nervous system (CNS) injury and cerebrovascular accident (CVA,
; CC stroke), Alzheimer's disease, dementia, multiple sclerosis (MS),
; CC chemotherapy-induced neuropathy, amyotrophic lateral sclerosis (ALS),
; CC Parkinson's disease, ataxia, Huntington's disease, Creutzfeldt-Jakob
; CC disease, muscular dystrophy, and/or other neurodegenerative disease
; CC states which respond to the modulation of NOGO expression. The
; CC present sequence is a hammerhead ribozyme of the invention.
; XX

; SQ Sequence 17 BP; 7 A; 2 C; 1 G; 7 U; 0 other;
;
; abk02864 Length: 17 October 16, 2003 08:46 Type: N Check: 1263 ..
abk02864

Query Match 0.3%; Score 14.4; DB 1; Length 17;
Best Local Similarity 93.8%; Pred. No. 0;
Matches 15; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 5120 TTGGAATAATTTCTAT 5135
||||||||||||| ||
Db 16 TTGGAATAATTTCAAT 1

RESULT 212
abk19272
; TOIG of: abk19272 check: 289 from: 1 to: 17
;
; ID abk19272 standard; RNA; 17 BP.
; XX
; AC abk19272;
; XX
; DT 09-APR-2002 (first entry)
; XX
; DE Human ERG Amberzyme target sequence Seq ID No 1919.
; XX
; KW Human; hammerhead ribozyme; cytostatic; antitumour; antidiabetic;
; KW ophthalmological; antiarthritic; antipsoriatic; virucide; osteopathic;
; KW vulnerary; cancer; lymphoma; Ewing's sarcoma; melanoma; psoriasis;
; KW tumour angiogenesis; diabetic retinopathy; macular degeneration;
; KW neovascular glaucoma; myopic degeneration; arthritis; verruca vulgaris;
; KW angiofibroma of tuberous sclerosis; port-wine stain; wound healing;
; KW Sturge Weber syndrome; Kippel-Trenaunay-Weber syndrome; leukaemia; ss;
; KW Osler-Weber-rendu syndrome; leukaemia; osteoporosis; DNAzyme; inozyme;
; KW amberzyme.
; XX
; OS Homo sapiens.
; XX
; PN WO200188124-A2.
; XX
; PD 22-NOV-2001.
; XX
; PF 16-MAY-2001; 2001WO-US15866.
; XX
; PR 16-MAY-2000; 2000US-0572021.
; XX
; PA (RIBO-) RIBOZYME PHARM INC.
; PA (GLAX) GLAXO GROUP LTD.
; XX
; PI Jarvis T, Von Carlowitz I, McSwiggen JA, Mclaughlin F, Randi AM;
; XX
; DR WPI; 2002-082995/11.
; XX
; PT Novel polynucleotide which down regulates expression of Ets-related
; PT gene, useful for treating cancer, diabetic retinopathy, macular
; PT degeneration, arthritis, psoriasis, verruca vulgaris and Sturge Weber
; PT syndrome -
; XX
; PS Claim 4; Page 124; 149pp; English.
; XX
; CC The invention relates to a nucleic acid molecule (I) which down regulates
; CC expression of an Ets related gene (ERG). (I) is useful for treating
; CC conditions selected from cancer, lymphoma, Ewing's sarcoma, melanoma,
; CC tumour angiogenesis, diabetic retinopathy, macular degeneration,
; CC neovascular glaucoma, myopic degeneration, arthritis, psoriasis, verruca
; CC vulgaris, angiofibroma of tuberous sclerosis, port-wine stains, Sturge
; CC Weber syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-rendu
; CC syndrome, leukaemia, osteoporosis and wound healing. (I) is useful for
; CC treating a patient having a condition associated with the level of ERG,
; CC by contacting cells of the patient with (I) under conditions suitable for
; CC the treatment. The method comprises the use of one or more therapies
; CC under conditions suitable for the treatment. Leukaemia or tumour
; CC angiogenesis is treated by administering (I) to the patient in

```
; CC   conjunction with one or more of other therapies such as radiation or
; CC   chemotherapy treatment. (I) is useful for reducing ERG activity in a
; CC   cell, by contacting the cell with (I). (I) is useful for cleaving RNA of
; CC   ERG gene, by contacting (I) with RNA, in the presence of a divalent
; CC   cation such as Mg2+. (I) is useful for diagnosis of conditions and
; CC   diseases related to the expression of ERG, and as diagnostic tool to
; CC   examine genetic drift and mutations within diseased cells or to detect
; CC   the presence of ERG RNA in a cell. (I) is useful for specifically
; CC   targeting genes that share homology with ERG gene or ERG fusion genes.
; CC   ABK17354-ABK22719 represent nucleic acids, including antisense and
; CC   enzymatic nucleic acid molecules which regulate expression of ERG, and
; CC   related PCR primers of the invention.
; XX
; SQ   Sequence 17 BP; 8 A; 3 C; 2 G; 4 U; 0 other;
;
;  ABK19272  Length: 17  October 16, 2003 08:46  Type: N  Check: 789  ..
abk19272

  Query Match              0.3%;  Score 14.4;  DB 1;  Length 17;
  Best Local Similarity   75.0%;  Pred. No. 0;
  Matches   12;  Conservative    3;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1061 TATGACAAGAACATTA 1076
              :|:||||||||||: |
Db          1 UAUGACAAGAACAUCA 16


RESULT 213
aaa06980
;  TOIG of: aaa06980  check: 2328  from: 1  to: 18
;
; ID   AAA06980 standard; DNA; 18 BP.
; XX
; AC   AAA06980;
; XX
; DT   03-JUL-2000  (first entry)
; XX
; DE   Human Smad5 phosphorothioate antisense oligonucleotide, SEQ ID NO:14.
; XX
; KW   Smad5; MADH5; Dwarfin-C; JV5-1; TGF-beta signalling pathway;
; KW   transcription factor; expression inhibition; tumour formation;
; KW   inflammation; antisense; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   US6040178-A.
; XX
; PD   21-MAR-2000.
; XX
; PF   23-FEB-1999;   99US-0256492.
; XX
; PR   23-FEB-1999;   99US-0256492.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Monia BP,  Cowsert LM;
; XX
; DR   WPI; 2000-270139/23.
; XX
; PT   Novel antisense compounds useful for inhibiting the expression of Smad5
; PT   in human cells or tissues and treating inflammation and tumor formation
; PT   .
; XX
; PS   Example 15; Column 38; 31pp; English.
; XX
; CC   Sequences AAA06974-A07013 represent antisense oligonucleotides targetted
; CC   to the human Smad5 gene, which inhibit its expression. The antisense
; CC   oligonucleotides were designed to target different regions of the human
; CC   Smad5 RNA, and were analysed for their effect on Smad5 mRNA levels by
; CC   quantitative real-time PCR. The Smad proteins are a family of cytosolic
; CC   proteins which are involved in TGF-beta superfamily signal transduction.
; CC   On ligand binding, TGF-beta superfamily proteins (such as bone
; CC   morphogenetic protein (BMP), activin and TGF-betas themselves)
; CC   phosphorylate Smad proteins, which then homo- or heterodimerise and
; CC   translocate to the nucleus to activate target gene transcription. Smad5
; CC   (also known as MADH5, Dwarfin-C and JV5-1) is a member of the subgroup
; CC   of Smad family transcription factors which mediate signal transduction
; CC   from BMPs. Smad5 is activated by BMP-2 through the BMP type Ia or Ib
; CC   receptors, causing it to heterodimerise with the common mediator Smad4
; CC   (US6013787; AAY69622) and translocate to the nucleus. The antisense
; CC   oligonucleotides of the invention are useful for diagnosis, prevention
; CC   and treatment of conditions associated with Smad5 expression, such as
; CC   tumour formation, inflammation and certain infections.
; XX
; SQ   Sequence 18 BP; 5 A; 4 C; 3 G; 6 T; 0 other;
;
;  AAA06980  Length: 18  October 16, 2003 08:46  Type: N  Check: 2328  ..
aaa06980

  Query Match              0.3%;  Score 14.4;  DB 1;  Length 18;
  Best Local Similarity   93.8%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1825 TTTGACACAAATCTTT 1840
              ||||||:|||  |.|
Db          1 TTTGACACAAATCTTT 16


RESULT 214
aad51440
;  TOIG of: aad51440  check: 1895  from: 1  to: 18
;
; ID   AAD51440 standard; DNA; 18 BP.
; XX
; AC   AAD51440;
; XX
; DT   16-APR-2003  (first entry)
; XX
; DE   hGH-V gene fragment amplifying antisense PCR primer #1.
; XX
; KW   Human; growth hormone V; hGH-V; craniofacial development; angiogenesis;
; KW   phallic growth; hypochondroplasia; cognitive function; arteriosclerosis;
; KW   sensorineural deafness; mental retardation; insulin resistance; tumour;
; KW   type II diabetes; haematological disorder; autoimmune disease; allergy;
; KW   infectious disease; metabolic disorder; body mass maintenance; obesity;
; KW   graft rejection; retinopathy; cardiovascular disease; foetal aneuploidy;
; KW   foetal abnormality; gene therapy; single nucleotide polymorphism; SNP;
; KW   cancer; PCR; primer; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO2002101002-A2.
; XX
; PD   19-DEC-2002.
; XX
; PF   07-JUN-2002; 2002WO-EP006919
; XX
; PR   07-JUN-2001; 2001US-296144P.
; PR   21-SEP-2001; 2001EP-0402433.
; PR   27-SEP-2001; 2001US-3254610.
; XX
; PA   (GENO-) GENODYSSEE.
; XX
; PI   Escary J;
; XX
; DR   WPI; 2003-148787/14.
; XX
; PT   New polynucleotide derived from the nucleotide sequence of the human
; PT   growth hormone-V gene, useful for preparing a medicament for preventing
; PT   or treating a disease or disorder, e.g. mental retardation, autoimmune
; PT   diseases or cancers
; XX
; PS   Disclosure; Column 69; 45pp; English.
; XX
; CC   The invention relates to human growth hormone (hGH)-V gene polypeptides
; CC   and polynucleotides. Sequences of the invention are useful for preventing
```

```
; CC   or treating a foetus or child having a disease or disorder linked to
; CC   the human growth and development, such as foetal growth and development,
; CC   perinatal carbohydrate metabolism, craniofacial developments, phallic
; CC   growth, hypochondroplasia or Laron type of dwarfism, disorders related
; CC   to IGF-1 secretion such as cognitive functions reduction, sensorineural
; CC   deafness, mental retardation, insulin resistance, type II diabetes or
; CC   haematological disorders, tumours and cancers such as breast or prostate
; CC   cancer, disorders or diseases linked to the immune system such as
; CC   allergies, autoimmune diseases, graft rejection or certain infectious
; CC   diseases, metabolic disorders or diseases related to lipid, nitrogen and
; CC   carbohydrate metabolism such as obesity, arteriosclerosis, body mass
; CC   maintenance or disorders/diseases linked to angiogenesis, retinopathy or
; CC   cardiovascular diseases. The invention is useful as genetic marker for
; CC   diagnosing or determining a prognosis of a disease or resistance to a
; CC   disease e.g. foetal abnormalities such as foetal aneuploidy. The
; CC   invention is also useful in gene therapy. The present sequence is
; CC   a PCR primer used to amplify hGH-V gene fragment comprising single
; CC   nucleotide polymorphism (SNP).
; XX
; SQ   Sequence 18 BP; 2 A; 9 C; 4 G; 3 T; 0 other;
;
;  AAD51440  Length: 18  October 16, 2003 08:46  Type: N  Check: 1895  ..
aad51440

  Query Match             0.3%;  Score 14.4;  DB 1;  Length 18;
  Best Local Similarity   93.8%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        301 GCCTCCCTCCAGGGTC 316
              ||||||||||||||| |
Db          3 GCCTCCCTCCAGGGAC 18


RESULT 215
aaz93494/c
;  TOIG of: aaz93494  check: 2467  from: 1  to: 18
;
; ID   AAZ93494 standard; DNA; 18 BP.
; XX
; AC   AAZ93494;
; XX
; DT   24-JUL-2000  (first entry)
; XX
; DE   TRADD antisense oligonucleotide.
; XX
; KW   TRADD; TNF; tumour necrosis factor; NF-kappa B; apoptosis;
; KW   programmed cell death; antisense; inhibition; treatment; therapy;
; KW   septic shock; inflammation; cancer; antiinflammatory; human; ss.
; XX
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   misc_binding    complement (1. .18)
; FT                   /*tag= a
; FT                   /note= "Complementary to bases 947-930 of the human
; FT                          TRADD sequence described in GENESEQ record
; FT                          AAZ93431"
; XX
; PN   WO200012527-A1.
; XX
; PD   09-MAR-2000.
; XX
; PF   25-AUG-1999;   99WO-US19614.
; XX
; PR   28-AUG-1998;   98US-0143212.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Monia BP,  Cowsert LM;
; XX
; DR   WPI; 2000-237846/20.
; XX
; PT   New antisense compounds that limit the expression of human TRADD
; PT   protein, useful in the treatment and diagnosis of cancer, inflammation
; PT   and septic shock
; XX
; PS   Claim 3; Page 52; 85pp; English.
; XX
; CC   The intracellular protein TRADD has been identified as a critical
; CC   link between tumour necrosis factor (TNF) receptor binding and
; CC   downstream activation of NF-kappa-B. Overexpression of native TRADD
; CC   activates NF-kappa-B in the absence of TNF and dominant negative
; CC   mutants of TRADD block TNF-induced NF-kappa-B activation. A second
; CC   effect of TNF in many cell types is the induction of apoptosis
; CC   (programmed cell death). TRADD overexpression has been shown to
; CC   mimic TNF induction of apoptosis as well. Data indicates that TRADD
; CC   and other downstream effector proteins are the rate limiting step
; CC   of TNF action and would therefore serve as the most efficient
; CC   targets for inhibition of TNF-induced events.  Antisense
; CC   oligonucleotides capable of inhibiting TRADD function may therefore
; CC   be useful in a number of therapeutic, diagnostic and research
; CC   applications. Inhibiting expression of TRADD by contacting human
; CC   cells or tissues with the antisense compound may be used to treat a
; CC   disease or condition associated with TRADD expression, for example,
; CC   septic shock, inflammation, or cancer. TRADD antisense
; CC   oligonucleotides of varying inhibitory capabilities are listed in
; CC   GENESEQ records AAZ93438-Z93517. The antisense oligonucleotides
; CC   exhibit enhanced inhibitory capabilities when they have 2'-MOE
; CC   wings and a deoxy gap.
; XX
; SQ   Sequence 18 BP; 1 A; 6 C; 6 G; 5 T; 0 other;
;
;  AAZ93494  Length: 18  October 16, 2003 08:46  Type: N  Check: 2467  ..
aaz93494

  Query Match             0.3%;  Score 14.4;  DB 1;  Length 18;
  Best Local Similarity   93.8%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1348 ACCAGCCAGGCAGAGG 1363
              ||||||| |||||||
Db         17 ACCAGCCTGGCAGAGG 2


RESULT 216
aaa62349
;  TOIG of: aaa62349  check: 8820  from: 1  to: 14
;
; ID   AAA62349 standard; DNA; 14 BP.
; XX
; AC   AAA62349;
; XX
; DT   06-NOV-2000  (first entry)
; XX
; DE   Oligonucleotide #1 containing 3'-C-amino-5'(S)-C,3'-N-ethanothymidine.
; XX
; KW   Conformationally locked oligonucleotide; antisense inhibitor;
; KW   bicyclic sugar nucleoside analogue; gene probe; ds.
; XX
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1
; FT                   /*tag= a
; FT                   /mod_base= OTHER
; FT                   /note= "3'-C-amino-5'(S)-C,3'-N-ethanothymidine"
; FT   modified_base   3
; FT                   /*tag= b
; FT                   /mod_base= OTHER
; FT                   /note= "3'-C-amino-5'(S)-C,3'-N-ethanothymidine"
; FT   modified_base   5
; FT                   /*tag= c
; FT                   /mod_base= OTHER
; FT                   /note= "3'-C-amino-5'(S)-C,3'-N-ethanothymidine"
; FT   modified_base   7
; FT                   /*tag= d
```

```
; FT                   /mod_base= OTHER
; FT                   /note= "3'-C-amino-5'(S)-C,5'-N-ethanothymidine"
; FT   modified_base   9
; FT                   /*tag=  e
; FT                   /mod_base= OTHER
; FT                   /note= "3'-C-amino-5'(S)-C,3'-N-ethanothymidine"
; FT   modified_base   10
; FT                   /*tag=  f
; FT                   /mod_base= OTHER
; FT                   /note= "3'-C-amino-5'(S)-C,3'-N-ethanothymidine"
; FT   modified_base   12
; FT                   /*tag=  g
; FT                   /mod_base= OTHER
; FT                   /note= "3'-C-amino-5'(S)-C,3'-N ethanothymidine"
; XX
; PN   US6083482-A.
; XX
; PD   04-JUL-2000.
; XX
; PF   11-MAY-1999;   99US-0309742.
; XX
; PR   11-MAY-1999;   99US-0309742.
; XX
; PA   (ICNC ) ICN PHARM INC.
; XX
; PI   Wang G;
; XX
; DR   WPI; 2000-451496/39.
; XX
; PT   New conformationally restricted 3',5'-bridged nucleosides and
; PT   oligonucleotides useful as antisense therapeutics or as gene-specific
; PT   diagnostics -
; XX
; PS   Example 20; Column 16; 10pp; English.
; XX
; CC   The present sequence is an oligonucleotide containing
; CC   3'-C-amino-5'(S)-C,3'-N-ethanothymidine, a bicyclic-sugar nucleoside.
; CC   All nucleotides in the sequence were incorporated by phosphoramidite
; CC   chemistry using a DNA synthesiser. Bicyclic sugar nucleosides are
; CC   conformationally restricted 3',5'-bridged nucleosides which can be used
; CC   as building blocks for oligonucleotides. Oligonucleotides can be
; CC   produced that have certain, desired, geometrical shapes and entropy
; CC   advantages. They may have superior hybridisation to DNA and RNA, and
; CC   excellent biological stability. The conformationally-modified
; CC   oligonucleotides may be useful as antisense inhibitors of gene expression
; CC   or as gene probes, and may therefore be used in antisense therapeutics or
; CC   gene-specific diagnostics.
; XX
; SQ   Sequence 14 BP; 0 A; 0 C; 0 G; 14 T; 0 other;
;
;  AAA62349  Length: 14  October 16, 2003 08:46  Type: N  Check: 8820  ..
aaa62349

  Query Match              0.3%;  Score 14;  DB 1;  Length 14;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4501 TTTTTTTTTTTTTT 4514
              ||||||||||||||
Db          1 TTTTTTTTTTTTTT 14


RESULT 217
aaa62349/c
;  TOIG of: aaa62349  check: 8820  from: 1  to: 14
;
; ID   AAA62349 standard; DNA; 14 BP.
; XX
; AC   AAA62349;
; XX
; DT   06-NOV-2000  (first entry)
; XX
; DE   Oligonucleotide #1 containing 3'-C-amino-5'(S)-C,3'-N-ethanothymidine.
; XX
; KW   Conformationally-locked oligonucleotide; antisense inhibitor;
; KW   bicyclic sugar nucleoside analogue; gene probe; ds.
; XX
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base   1
; FT                   /*tag=  a
; FT                   /mod_base= OTHER
; FT                   /note= "3'-C-amino-5'(S)-C,3'-N-ethanothymidine"
; FT   modified_base   3
; FT                   /*tag=  b
; FT                   /mod_base= OTHER
; FT                   /note= "3'-C-amino-5'(S)-C,3'-N-ethanothymidine"
; FT   modified_base   5
; FT                   /*tag=  c
; FT                   /mod_base= OTHER
; FT                   /note= "3'-C-amino-5'(S)-C,3'-N-ethanothymidine"
; FT   modified_base   7
; FT                   /*tag=  d
; FT                   /mod_base= OTHER
; FT                   /note= "3'-C-amino-5'(S)-C,3'-N-ethanothymidine"
; FT   modified_base   9
; FT                   /*tag=  e
; FT                   /mod_base= OTHER
; FT                   /note= "3'-C-amino-5'(S)-C,3'-N-ethanothymidine"
; FT   modified_base   10
; FT                   /*tag=  f
; FT                   /mod_base= OTHER
; FT                   /note= "3'-C-amino-5'(S)-C,3'-N-ethanothymidine"
; FT   modified_base   12
; FT                   /*tag=  g
; FT                   /mod_base= OTHER
; FT                   /note= "3'-C-amino-5'(S)-C,3'-N-ethanothymidine"
; XX
; PN   US6083482-A.
; XX
; PD   04-JUL-2000.
; XX
; PF   11-MAY-1999;   99US-0309742.
; XX
; PR   11-MAY-1999;   99US-0309742.
; XX
; PA   (ICNC ) ICN PHARM INC.
; XX
; PI   Wang G;
; XX
; DR   WPI; 2000-451496/39.
; XX
; PT   New conformationally restricted 3',5'-bridged nucleosides and
; PT   oligonucleotides useful as antisense therapeutics or as gene-specific
; PT   diagnostics -
; XX
; PS   Example 20; Column 16; 10pp; English.
; XX
; CC   The present sequence is an oligonucleotide containing
; CC   3'-C-amino-5'(S)-C,3'-N-ethanothymidine, a bicyclic-sugar nucleoside.
; CC   All nucleotides in the sequence were incorporated by phosphoramidite
; CC   chemistry using a DNA synthesiser. Bicyclic sugar nucleosides are
; CC   conformationally restricted 3',5'-bridged nucleosides which can be used
; CC   as building blocks for oligonucleotides. Oligonucleotides can be
; CC   produced that have certain, desired, geometrical shapes and entropy
; CC   advantages. They may have superior hybridisation to DNA and RNA, and
; CC   excellent biological stability. The conformationally-modified
; CC   oligonucleotides may be useful as antisense inhibitors of gene expression
; CC   or as gene probes, and may therefore be used in antisense therapeutics or
; CC   gene-specific diagnostics.
; XX
; SQ   Sequence 14 BP; 0 A; 0 C; 0 G; 14 T; 0 other;
;
;  AAA62349  Length: 14  October 16, 2003 08:46  Type: N  Check: 8820  ..
aaa62349
```

```
  Query Match             0.3%;  Score 14;  DB 1;  Length 14;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5207 AAAAAAAAAAAAAA 5220
             ||||||||||||||
Db         14 AAAAAAAAAAAAAA 1


RESULT 218
aad23152/c
;  TOIG of: aad23152  check: 8391  from: 1  to: 14
;
; ID   AAD23152 standard; DNA; 14 BP.
; XX
; AC   AAD23152;
; XX
; DT   26-FEB-2002  (first entry)
; XX
; DE   Human lung tumour-specific cDNA synthesising 3' RT-PCR anchored primer.
; XX
; KW   Human; lung tumour protein; immunostimulant; cytostatic; gene therapy;
; KW   antisense-therapy; vaccine; immune response; lung cancer; RT-PCR primer;
; KW   ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO200172295-A2.
; XX
; PD   04-OCT-2001.
; XX
; PF   28-MAR-2001; 2001WO-US09991.
; XX
; PR   29-MAR-2000; 2000US-0538037.
; PR   05-JUN-2000; 2000US-0588937.
; PR   18-AUG-2000; 2000US-0640878.
; PR   22-SEP-2000; 2000US-234517P.
; PR   01-NOV-2000; 2000US-0704512.
; PR   14-DEC-2000; 2000US-0738973.
; XX
; PA   (CORI-) CORIXA CORP.
; XX
; PI   Reed SG,  Lodes MJ,  Mohamath R,  Secrist H,  Benson DR,  Indirias CY;
; PI   Henderson RA,  Fling SP,  Algate PA,  Elliot M,  Mannion J,  Kalos MD;
; XX
; DR   WPI; 2001-639201/73.
; XX
; PT   New human lung-specific polynucleotides and polypeptides for the
; PT   diagnosis and treatment of disease e.g. lung cancer -
; XX
; PS   Example 1; Page 162; 378pp; English.
; XX
; CC   The invention relates to isolated lung tumour-specific proteins and
; CC   their corresponding cDNA molecules. Lung tumour-specific proteins and
; CC   their antigen-presenting cells are useful for stimulating and/or
; CC   expanding T cells specific for a tumour protein, and for inhibiting
; CC   the development of cancer. The invention also relates to a composition
; CC   useful for stimulating an immune response, and for treating cancer. The
; CC   lung tumour specific oligonucleotide is useful in gene therapy and for
; CC   diagnosis, detection and treatment of lung cancer. The present DNA
; CC   sequence is 3' RT (reverse transcriptase)-PCR anchored primer which is
; CC   used for synthesising human lung tumour-specific cDNA.
; XX
; SQ   Sequence 14 BP; 1 A; 0 C; 1 G; 12 T; 0 other;
;
;  AAD23152  Length: 14  October 16, 2003 08:46  Type: N  Check: 8391  ..
aad23152

  Query Match             0.3%;  Score 14;  DB 1;  Length 14;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5205 CTAAAAAAAAAAAA 5218
             ||||||||||||||
Db         14 CTAAAAAAAAAAAA 1


RESULT 219
aat36896/c
;  TOIG of: aat36896  check: 8391  from: 1  to: 14
;
; ID   AAT36896 standard; DNA; 14 BP.
; XX
; AC   AAT36896;
; XX
; DT   23-OCT-1996  (first entry)
; XX
; DE   Candida albicans leukotriene A4 hydrolase cDNA PCR primer.
; XX
; KW   Leukotriene A4 hydrolase; pro-inflammatory; reduced;
; KW   5,6-dihydroxy 7,9,11,14-eicosatetraenoic acid; immune response;
; KW   expression vector; recombinant production; antibody generation;
; KW   diagnostic agent; passive immunisation; vaccine; treatment;
; KW   prevention; infection; reagent; detection; modulation;
; KW   inflammatory response; antisense; prevention; PCR; primer;
; KW   polymerase chain reaction; ss.
; XX
; OS   Synthetic.
; XX
; PN   US5529916-A.
; XX
; PD   25-JUN-1996.
; XX
; PF   01-NOV-1994;   94US-0332838.
; XX
; PR   01-NOV-1994;   94US-0332838.
; XX
; PA   (STRD ) UNIV LELAND STANFORD JUNIOR.
; XX
; PI   Cormack BP,  Falkow S;
; XX
; DR   WPI; 1996-308739/31.
; XX
; PT   Recombinant DNA encoding yeast leukotriene A4 hydrolase - and
; PT   related vectors and transformed cells, producing yeast hydrolase
; PT   useful, e.g. as vaccine against Candida infection and as diagnostic
; PT   reagent
; XX
; PS   Example 1; Columns 23-24, 24pp; English.
; XX
; CC   The present sequence is a primer for the C. albicans leukotriene A4
; CC   (LTA4) hydrolase, cDNA. The hydrolase converts LTA4 to (probably)
; CC   5,6-dihydroxy-7,9,11,14-eicosatetraenoic acid, which is less
; CC   pro-inflammatory than the LTB4 produced by the mammalian enzyme,
; CC   therefore reducing the immune response to C. albicans. An
; CC   expression vector contg. the hydrolase cDNA can be used to produce
; CC   the hydrolase, which can be used to generate antibodies (as
; CC   diagnostic agents, or for passive immunisation), as a vaccine to
; CC   treat or prevent Candida infection, as a reagent to detect
; CC   antibodies and to reduce/modulate an inflammatory response by
; CC   systemic or topical application. Nucleic acid antisense to the
; CC   hydrolase cDNA may prevent hydrolase expression.
; XX
; SQ   Sequence 14 BP; 1 A; 0 C; 1 G; 12 T; 0 other;
;
;  AAT36896  Length: 14  October 16, 2003 08:46  Type: N  Check: 8391  ..
aat36896

  Query Match             0.3%;  Score 14;  DB 1;  Length 14;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5205 CTAAAAAAAAAAAA 5218
             ||||||||||||||
Db         14 CTAAAAAAAAAAAA 1
```

```
RESULT 220
aav12217
;  TOIG of: aav12217  check: 8469  from: 1  to: 14
;
; ID   AAV12217 standard; DNA; 14 BP.
; XX
; AC   AAV12217;
; XX
; DT   22-JUN-1998  (first entry)
; XX
; DE   Poly(T) oligonucleotide used in differential display PCR.
; XX
; KW   Retinoid metabolising protein; P450RAI; retinoid oxidase;
; KW   retinoic acid; zebrafish; inhibitor; antisense; cancer;
; KW   actinic keratosis; oral leukoplakia; head tumour; neck tumour;
; KW   non-small cell lung carcinoma; basal cell carcinoma;
; KW   acute promyelocytic leukaemia; skin cancer; acne; psoriasis;
; KW   ichthyosis; therapy; diagnosis; screening; differential display;
; KW   PCR; primer; ss.
; XX
; OS   Synthetic.
; XX
; PN   WO9749815-A1.
; XX
; PD   31-DEC-1997.
; XX
; PF   23-JUN-1997;   97WO-CA00440.
; XX
; PR   01-OCT-1996;   96US-0724466.
; PR   21-JUN-1996;   96US-0667546.
; XX
; PA   (TOOH ) UNIV QUEENS KINGSTON.
; XX
; PI   Beckett BR, Jones G, Petkovich PM, White JA;
; XX
; DR   WPI; 1998-077178/07.
; XX
; PT   Retinoid metabolising protein - useful to develop products to treat,
; PT   e.g. cancer, actinic keratosis, oral leukoplakia, acne, psoriasis or
; PT   ichthyosis
; XX
; PS   Disclosure; Page 14; 110pp; English.
; XX
; CC   PolyT oligonucleotides (see AAV12217-28) were used in reverse
; CC   transcription reactions on polyA+ RNA isolated from the fins of
; CC   control or retinoic acid-treated zebrafish (Danio rerio). Several
; CC   combinations of the polyT primers were used with degenerate
; CC   upstream primers (see AAV12229-33) for differential display PCR.
; CC   Bands demonstrating reproducible differential amplifications were
; CC   found using the primers given in AAV12221 and AAV12231. This PCR
; CC   product was reamplified (see AAV12234-35). A differential display
; CC   product (see AAV12213) which exhibited a dependence on the presence
; CC   of retinoic acid for its expression was isolated, and was used to
; CC   isolate a full-length clone (see AAV12203) coding for a novel
; CC   retinoid metabolising protein (see AAW44159), designated zP450RAI.
; XX
; SQ   Sequence 14 BP; 0 A; 0 C; 2 G; 12 T; 0 other;
;
;  AAV12217  Length: 14  October 16, 2003 08:46  Type: N  Check: 8469  ..
aav12217

  Query Match             0.3%;  Score 14;  DB 1;  Length 14;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4504 TTTTTTTTTTTTGG 4517
              ||||||||||||||
Db          1 TTTTTTTTTTTTGG 14


RESULT 221
aav12221/c
;  TOIG of: aav12221  check: 8391  from: 1  to: 14
;
; ID   AAV12221 standard; DNA; 14 BP.
; XX
; AC   AAV12221;
; XX
; DT   22-JUN-1998  (first entry)
; XX
; DE   Poly(T) oligonucleotide used in differential display PCR.
; XX
; KW   Retinoid metabolising protein; P450RAI; retinoid oxidase;
; KW   retinoic acid; zebrafish; inhibitor; antisense; cancer;
; KW   actinic keratosis; oral leukoplakia; head tumour; neck tumour;
; KW   non-small cell lung carcinoma; basal cell carcinoma;
; KW   acute promyelocytic leukaemia; skin cancer; acne; psoriasis;
; KW   ichthyosis; therapy; diagnosis; screening; differential display;
; KW   PCR; primer; ss.
; XX
; OS   Synthetic.
; XX
; PN   WO9749815-A1.
; XX
; PD   31-DEC-1997.
; XX
; PF   23-JUN-1997;   97WO-CA00440.
; XX
; PR   01-OCT-1996;   96US-0724466.
; PR   21-JUN-1996;   96US-0667546.
; XX
; PA   (TOOH ) UNIV QUEENS KINGSTON.
; XX
; PI   Beckett BR, Jones G, Petkovich PM, White JA;
; XX
; DR   WPI; 1998-077178/07.
; XX
; PT   Retinoid metabolising protein - useful to develop products to treat,
; PT   e.g. cancer, actinic keratosis, oral leukoplakia, acne, psoriasis or
; PT   ichthyosis
; XX
; PS   Disclosure; Page 14; 110pp; English.
; XX
; CC   PolyT oligonucleotides (see AAV12217-28) were used in reverse
; CC   transcription reactions on polyA+ RNA isolated from the fins of
; CC   control or retinoic acid-treated zebrafish (Danio rerio). Several
; CC   combinations of the polyT primers were used with degenerate
; CC   upstream primers (see AAV12229-33) for differential display PCR.
; CC   Bands demonstrating reproducible differential amplifications were
; CC   found using the primers given in AAV12221 and AAV12231. This PCR
; CC   product was reamplified (see AAV12234-35). A differential display
; CC   product (see AAV12213) which exhibited a dependence on the presence
; CC   of retinoic acid for its expression was isolated, and was used to
; CC   isolate a full-length clone (see AAV12203) coding for a novel
; CC   retinoid metabolising protein (see AAW44159), designated zP450RAI.
; XX
; SQ   Sequence 14 BP; 1 A; 0 C; 1 G; 12 T; 0 other;
;
;  AAV12221  Length: 14  October 16, 2003 08:46  Type: N  Check: 8391  ..
aav12221

  Query Match             0.3%;  Score 14;  DB 1;  Length 14;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5205 CTAAAAAAAAAAAA 5218
              ||||||||||||||
Db         14 CTAAAAAAAAAAAA 1


RESULT 222
aax19468/c
;  TOIG of: aax19468  check: 8391  from: 1  to: 14
;
```

```
; ID   AAX19468 standard; DNA; 14 BP.
; XX
; AC   AAX19468;
; XX
; DT   21-MAY-1999  (first entry)
; XX
; DE   Human senescence factor p23 T12 anchor primer SEQ ID NO:10.
; XX
; KW   Human; senescence factor; p23; cancer; persistent inflammation;
; KW   proliferative disorder; degenerative disorder; primer; ss.
; XX
; OS   Synthetic.
; OS   Homo sapiens.
; XX
; PN   WO9907893-A1.
; XX
; PD   18-FEB-1999.
; XX
; PF   05-AUG-1998;   98WO-US16343.
; XX
; PR   08-AUG-1997;   97US-0908873.
; XX
; PA   (UNIW ) UNIV WASHINGTON.
; XX
; PI   Hosier S,  Kubbies M,  Swisshelm K;
; XX
; DR   WPI; 1999-167454/14.
; XX
; PT   Newly isolated nucleic acid molecule (designated p23) encoding a p23
; PT   polypeptide - useful for inducing a senescence phenotype in a cell
; XX
; PS   Example 1; Page 18; 44pp; English.
; XX
; CC   The present invention describes human senescence factor p23. An
; CC   expression vector for p23 is useful for inducing a senescent phenotype
; CC   in a cell (preferably eukaryotic). This may help in regulating diseases,
; CC   including cancer, persistent inflammation, and various proliferative and
; CC   degenerative disorders. These transgenic cells are useful in gene
; CC   therapy for treating cancer, particularly where antisense
; CC   oligonucleotides are useful for blocking normal or mutant p23 expression
; CC   in cancer cells or other proliferating cells. Transgenic cells are also
; CC   useful for producing the p23 polypeptide in large quantities. The
; CC   antibodies are useful for raising antiserum against p23, and for
; CC   identifying senescent cells in culture and tissue biopsies. The p23
; CC   polynucleotides are useful for modulating or altering p23 activity in a
; CC   cell, and for identifying and isolating the whole gene encoding p23,
; CC   and variants of p23. Assays based on p23 elements, which detect p23
; CC   levels and activity are useful as diagnostic markers for staging tumours,
; CC   determining prognosis, and/or predicting therapeutic success. These
; CC   elements also provide an assay for detecting chromosomal rearrangements
; CC   in chromosome 3 in a human cell. The isolation of the p23 polynucleotide
; CC   permits the manipulation of malignant growth in cancer. The present
; CC   sequence represents a primer used in an example from the present
; CC   invention.
; XX
; SQ   Sequence 14 BP; 1 A; 0 C; 1 G; 12 T; 0 other;
;
;  AAX19468  Length: 14  October 16, 2003 08:46  Type: N  Check: 8391  ..
aax19468

  Query Match             0.3%;  Score 14;  DB 1;  Length 14;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5205 CTAAAAAAAAAAAA 5218
              ||||||||||||||
Db         14 CTAAAAAAAAAAAA 1


RESULT 223
aax19469
;  TOIG of: aax19469  check: 8469  from: 1  to: 14
;
; ID   AAX19469 standard; DNA; 14 BP.
; XX
; AC   AAX19469;
; XX
; DT   21-MAY-1999  (first entry)
; XX
; DE   Human senescence factor p23 T12 anchor primer SEQ ID NO:11.
; XX
; KW   Human; senescence factor; p23; cancer; persistent inflammation;
; KW   proliferative disorder; degenerative disorder; primer; ss.
; XX
; OS   Synthetic.
; OS   Homo sapiens.
; XX
; PN   WO9907893-A1.
; XX
; PD   18-FEB-1999.
; XX
; PF   05-AUG-1998;   98WO-US16343.
; XX
; PR   08-AUG-1997;   97US-0908873.
; XX
; PA   (UNIW ) UNIV WASHINGTON.
; XX
; PI   Hosier S,  Kubbies M,  Swisshelm K;
; XX
; DR   WPI; 1999-167454/14.
; XX
; PT   Newly isolated nucleic acid molecule (designated p23) encoding a p23
; PT   polypeptide - useful for inducing a senescence phenotype in a cell
; XX
; PS   Example 1; Page 18; 44pp; English.
; XX
; CC   The present invention describes human senescence factor p23. An
; CC   expression vector for p23 is useful for inducing a senescent phenotype
; CC   in a cell (preferably eukaryotic). This may help in regulating diseases,
; CC   including cancer, persistent inflammation, and various proliferative and
; CC   degenerative disorders. These transgenic cells are useful in gene
; CC   therapy for treating cancer, particularly where antisense
; CC   oligonucleotides are useful for blocking normal or mutant p23 expression
; CC   in cancer cells or other proliferating cells. Transgenic cells are also
; CC   useful for producing the p23 polypeptide in large quantities. The
; CC   antibodies are useful for raising antiserum against p23, and for
; CC   identifying senescent cells in culture and tissue biopsies. The p23
; CC   polynucleotides are useful for modulating or altering p23 activity in a
; CC   cell, and for identifying and isolating the whole gene encoding p23,
; CC   and variants of p23. Assays based on p23 elements, which detect p23
; CC   levels and activity are useful as diagnostic markers for staging tumours,
; CC   determining prognosis, and/or predicting therapeutic success. These
; CC   elements also provide an assay for detecting chromosomal rearrangements
; CC   in chromosome 3 in a human cell. The isolation of the p23 polynucleotide
; CC   permits the manipulation of malignant growth in cancer. The present
; CC   sequence represents a primer used in an example from the present
; CC   invention.
; XX
; SQ   Sequence 14 BP; 0 A; 0 C; 2 G; 12 T; 0 other;
;
;  AAX19469  Length: 14  October 16, 2003 08:46  Type: N  Check: 8469  ..
aax19469

  Query Match             0.3%;  Score 14;  DB 1;  Length 14;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4504 TTTTTTTTTTTTGG 4517
              ||||||||||||||
Db          1 TTTTTTTTTTTTGG 14


RESULT 224
aaf16603/c
;  TOIG of: aaf16603  check: 7819  from: 1  to: 15
;
```

```
; ID   AAF16603 standard; DNA; 15 BP.
; XX
; AC   AAF16603;
; XX
; DT   13-MAR-2001  (first entry)
; XX
; DE   Gastric acid production inhibiting oligonucleotide SEQ ID NO: 90.
; XX
; KW   Gastric acid disturbance; gastric reflux; gastritis; dyspepsia;
; KW   stomach ulcer; duodenal ulcer; Helicobacter pylori; antisense;
; KW   DNA-RNA hybrid; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO200071164-A1.
; XX
; PD   30-NOV-2000.
; XX
; PF   24-MAY-2000; 2000WO-AU00498.
; XX
; PR   24-MAY-1999;   99AU-0000510.
; XX
; PA   (TACH/) TACHAS G.
; XX
; PI   Tachas G;
; XX
; DR   WPI; 2001-025093/03.
; XX
; PT   Treating gastric acid disturbance by administering an oligonucleotide
; PT   which modulates the activity of a polypeptide involved in gastric acid
; PT   production or secretion -
; XX
; PS   Example 3; Page 148; 164pp; English.
; XX
; CC   The present invention provides oligonucleotides, and methods for their
; CC   use, which are useful in modulating the action of proteins involved in
; CC   gastric acid production. The target protein is preferably the histamine
; CC   H2 receptor or one of the proteins which form part of the gastric proton
; CC   pump. The sequences and methods of the invention are useful in the
; CC   treatment of gastric reflux, gastritis, dyspepsia, stomach ulcers,
; CC   duodenal ulcers and other gastric acid disturbances, most of which are
; CC   caused by Helicobacter pylori.
; XX
; SQ   Sequence 15 BP; 14 A; 0 C; 0 G; 1 T; 0 other;
;
;  AAF16603  Length: 15  October 16, 2003 08:46  Type: N  Check: 7819  ..
aaf16603

  Query Match             0.3%;  Score 14;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4501 TTTTTTTTTTTTTT 4514
              ||||||||||||||
Db         15 TTTTTTTTTTTTTT 2


RESULT 225
aaf49041/c
;  TOIG of: aaf49041  check: 9885  from: 1  to: 15
;
; ID   AAF49041 standard; DNA; 15 BP.
; XX
; AC   AAF49041;
; XX
; DT   30-MAR-2001  (first entry)
; XX
; DE   IGF-I oligonucleotide #1.
; XX
; KW   Antisense therapy; antiproliferative; antiinflammatory; antipsoriatic;
; KW   cytostatic; dermatological; cardiant; virucide; ophthalmological; keloid;
; KW   skin disorder; Insulin-like Growth Factor 1 receptor; IGF-1; pityriasis;
; KW   IGF binding protein; IGFBP-2; IGFBP3; inflammation; psoriasis; pilaris;
; KW   growth factor mediated cell proliferation; ichthyosis; serborrhoea; ruba;
; KW   keratosis; neoplasia; scleroderma; wart; skin cancer; sclerotic disease;
; KW   hyperneovascular condition; hyperplasia; kidney disease;
; KW   neovascular condition of the retina; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO200078341-A1.
; XX
; PD   28-DEC-2000.
; XX
; PF   21-JUN-2000; 2000WO-AU00693.
; XX
; PR   21-JUN-1999;   99US-0140345.
; XX
; PA   (MURD-) MURDOCH CHILDRENS RES INST.
; XX
; PI   Wraight CJ,  Werther GA,  Edmondson SR;
; XX
; DR   WPI; 2001-041421/05.
; XX
; PT   Ameliorating the effects of a disorder, e.g. psoriasis, by
; PT   administering UV (ultra-violet) treatment (optional) and an antisense
; PT   nucleic acid that inhibits or reduces growth factor mediated cell
; PT   proliferation and/or inflammation -
; XX
; PS   Example 8; Page 60; 201pp; English.
; XX
; CC   The present invention relates to a method for ameliorating the effects
; CC   of skin disorders. The method comprises contacting the skin with an
; CC   antisense oligonucleotide, (for Insulin-like Growth Factor [IGF]-1
; CC   receptor, IGF binding protein [IGFBP]-2 or IGFBP3), which is capable of
; CC   inhibiting or reducing growth factor mediated cell proliferation,
; CC   inflammation and/or other disorders. The present sequence is an
; CC   oligonucleotide which can be used to design the antisense
; CC   oligonucleotides of the present invention (see AAF45151 and
; CC   AAF45153-F45161). The method is useful for ameliorating the effects of
; CC   psoriasis, ichthyosis, pityriasis, ruba, pilaris, serborrhoea, keloids,
; CC   keratosis, neoplasias, scleroderma, warts, benign growths, cancers of the
; CC   skin, a hyperneovascular condition such as a neovascular condition of the
; CC   retina, brain or skin, growth factor-mediated malignancies, other
; CC   sclerotic disease, kidney disease, hyperproliferation of the inside of
; CC   blood vessels or any other hyperplasia.
; XX
; SQ   Sequence 15 BP; 0 A; 0 C; 1 G; 14 T; 0 other;
;
;  AAF49041  Length: 15  October 16, 2003 08:46  Type: N  Check: 9885  ..
aaf49041

  Query Match             0.3%;  Score 14;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5207 AAAAAAAAAAAAAA 5220
              ||||||||||||||
Db         14 AAAAAAAAAAAAAA 1


RESULT 226
aaf49042
;  TOIG of: aaf49042  check: 9613  from: 1  to: 15
;
; ID   AAF49042 standard; DNA; 15 BP.
; XX
; AC   AAF49042;
; XX
; DT   30-MAR-2001  (first entry)
; XX
; DE   IGF-I oligonucleotide #2.
; XX
; KW   Antisense therapy; antiproliferative; antiinflammatory; antipsoriatic;
; KW   cytostatic; dermatological; cardiant; virucide; ophthalmological; keloid;
; KW   skin disorder; Insulin-like Growth Factor 1 receptor; IGF-1; pityriasis;
```

; KW IGF binding protein; IGFBP-2; IGFBP3; inflammation; psoriasis; pilaris;
; KW growth factor mediated cell proliferation; ichthyosis; serborrhoea; ruba;
; KW keratosis; neoplasia; scleroderma; wart; skin cancer; sclerotic disease;
; KW hyperneovascular condition; hyperplasia; kidney disease;
; KW neovascular condition of the retina; ss.
; XX
; OS Homo sapiens.
; XX
; PN WO200078341-A1.
; XX
; PD 28-DEC-2000.
; XX
; PF 21-JUN-2000; 2000WO-AU00693.
; XX
; PR 21-JUN-1999; 99US-0140345.
; XX
; PA (MURD-) MURDOCH CHILDRENS RES INST.
; XX
; PI Wraight CJ, Werther GA, Edmondson SR;
; XX
; DR WPI; 2001-041421/05.
; XX
; PT Ameliorating the effects of a disorder, e.g. psoriasis, by
; PT administering UV (ultra-violet) treatment (optional) and an antisense
; PT nucleic acid that inhibits or reduces growth factor mediated cell
; PT proliferation and/or inflammation -
; XX
; PS Example 8; Page 60; 201pp; English.
; XX
; CC The present invention relates to a method for ameliorating the effects
; CC of skin disorders. The method comprises contacting the skin with an
; CC antisense oligonucleotide, (for Insulin-like Growth Factor [IGF]-1
; CC receptor, IGF binding protein [IGFBP]-2 or IGFBP3), which is capable of
; CC inhibiting or reducing growth factor mediated cell proliferation,
; CC inflammation and/or other disorders. The present sequence is an
; CC oligonucleotide which can be used to design the antisense
; CC oligonucleotides of the present invention (see AAF45151 and
; CC AAF45153-F45161). The method is useful for ameliorating the effects of
; CC psoriasis, ichthyosis, pityriasis, ruba, pilaris, serborrhoea, keloids,
; CC keratosis, neoplasias, scleroderma, warts, benign growths, cancers of the
; CC skin, a hyperneovascular condition such as a neovascular condition of the
; CC retina, brain or skin, growth factor-mediated malignancies, other
; CC sclerotic disease, kidney disease, hyperproliferation of the inside of
; CC blood vessels or any other hyperplasia.
; XX
; SQ Sequence 15 BP; 1 A; 0 C; 1 G; 13 T; 0 other;
;
; AAF49042 Length: 15 October 16, 2003 08:46 Type: N Check: 9613 ..
aaf49042

Query Match 0.3%; Score 14; DB 1; Length 15;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 4503 TTTTTTTTTTTTTG 4516
||||||||||||||
Db 1 TTTTTTTTTTTTTG 14

RESULT 227
aax65145/c
; TOIG of: aax65145 check: 9004 from: 1 to: 15
;
; ID AAX65145 standard; RNA; 15 BP.
; XX
; AC AAX65145;
; XX
; DT 20-JUL-1999 (first entry)
; XX
; DE Mouse B7-1 hammerhead ribozyme target SEQ ID NO:1777.
; XX
; KW Arthritic condition; graft tolerance; immune response; target; cleavage;
; KW hammerhead ribozyme; hairpin ribozyme; human; rabbit; mouse; collagenase;
; KW stromelysin; synovial membrane; joint; arthritis; osteoarthritis;
; KW rheumatoid arthritis; autoimmune disease; allergy; inflammation;
; KW diagnosis; ss.
; XX
; OS Mus sp.
; XX
; PN WO9618736-A2.
; XX
; PD 20-JUN-1996.
; XX
; PF 22-NOV-1995; 95WO-US15516.
; XX
; PR 05-OCT-1995; 95US-0541365.
; PR 13-DEC-1994; 94US-0354920.
; PR 23-DEC-1994; 94US-0363253.
; PR 23-DEC-1994; 94US-0363254.
; PR 17-FEB-1995; 95US-0390850.
; PR 20-APR-1995; 95US-0426124.
; PR 02-MAY-1995; 95US-0432874.
; PR 04-MAY-1995; 95US-0434509
; PR 07-JUL-1995; 95US-0000951.
; PR 07-JUL-1995; 95US-0000974.
; PR 07-AUG-1995; 95US-0512861.
; XX
; PA (RIBO-) RIBOZYME PHARM INC.
; XX
; PI Draper K, Gustefson J, McSwiggen J, Pavco P, Stinchcomb DT;
; PI Beigelman L, Karpeisky A, Modak A, Usman N, Burgin A;
; PI Matulic-Adamic J, Jarvis T, Thompson JD, Wincott F;
; XX
; DR WPI; 1996-300653/30.
; XX
; PT Enzymatic nucleic acid molecules having a hammer-head motif - used
; PT for the treatment of arthritis, induction of graft tolerance or
; PT treatment of auto-immune diseases
; XX
; PS Claim 10; Page 177; 307pp; English.
; XX
; CC The present invention describes a novel enzymatic nucleic acid (ENA)
; CC having a hammerhead motif (HM) comprising: (i) at least 5 ribose
; CC residues; (ii) a 2'-C-allyl modification at position 4 of the ENA; (iii)
; CC at least ten 2'-O-methyl modifications; and (iv) a 3'-end modification.
; CC The ENA's can inhibit collagenase and stromelysin production in the
; CC synovial membrane of joints for the treatment or prevention of arthritis,
; CC particularly osteoarthritis or rheumatoid arthritis. The ENA's can also
; CC be used to treat antigen presenting cells of a donor to induce tolerance
; CC in a recipient to an alloantigen of a donor. They can also be used for
; CC enhancing graft tolerance or for treating autoimmune disease, and for
; CC treating allergies and other inflammatory conditions. The ENA's can also
; CC be used in diagnosis. Ribozyme therapy impacts on the expression of
; CC stromelysin without introducing the non-specific effects upon gene
; CC expression which accompany treatment with retinoids and dexamethasone.
; CC The concentration of ribozyme required to affect a therapeutic treatment
; CC is lower than that required of antisense molecules, and is highly
; CC specific. The present sequence is used in the exemplification of the
; CC present invention.
; XX
; SQ Sequence 15 BP; 3 A; 4 C; 1 G; 7 U; 0 other;
;
; AAX65145 Length: 15 October 16, 2003 08:46 Type: N Check: 9004 ..
aax65145

Query Match 0.3%; Score 14; DB 1; Length 15;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1404 GATGCTAAAGATGA 1417
||||||||||||||
Db 14 GATGCTAAAGATGA 1

RESULT 228
aax65146/c

```
;  TOIG of: aax65146  check: 9004  from: 1  to: 15
;
; ID   AAX65146 standard; RNA; 15 BP.
; XX
; AC   AAX65146;
; XX
; DT   20-JUL-1999  (first entry)
; XX
; DE   Mouse B7-1 hammerhead ribozyme target SEQ ID NO:1778.
; XX
; KW   Arthritic condition; graft tolerance; immune response; target; cleavage;
; KW   hammerhead ribozyme; hairpin ribozyme; human; rabbit; mouse; collagenase;
; KW   stromelysin; synovial membrane; joint; arthritis; osteoarthritis;
; KW   rheumatoid arthritis; autoimmune disease; allergy; inflammation;
; KW   diagnosis; ss.
; XX
; OS   Mus sp.
; XX
; PN   WO9618736-A2.
; XX
; PD   20-JUN-1996.
; XX
; PF   22-NOV-1995;   95WO-US15516.
; XX
; PR   05-OCT-1995;   95US-0541365.
; PR   13-DEC-1994;   94US-0354920.
; PR   23-DEC-1994;   94US-0363253.
; PR   23-DEC-1994;   94US-0363254.
; PR   17-FEB-1995;   95US-0390850.
; PR   20-APR-1995;   95US-0426124.
; PR   02-MAY-1995;   95US-0432874.
; PR   04-MAY-1995;   95US-0434509.
; PR   07-JUL-1995;   95US-0000951.
; PR   07-JUL-1995;   95US-0000974.
; PR   07-AUG-1995;   95US-0512861.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC.
; XX
; PI   Draper K,  Gustofson J,  McSwiggen J,  Pavco P,  Stinchcomb DT;
; PI   Beigelman L,  Karpeisky A,  Modak A,  Usman N,  Burgin A;
; PI   Matulic-Adamic J,  Jarvis T,  Thompson JD,  Wincott F;
; XX
; DR   WPI; 1996-300653/30.
; XX
; PT   Enzymatic nucleic acid molecules having a hammer-head motif - used
; PT   for the treatment of arthritis, induction of graft tolerance or
; PT   treatment of auto-immune diseases
; XX
; PS   Claim 10; Page 177; 307pp; English.
; XX
; CC   The present invention describes a novel enzymatic nucleic acid (ENA)
; CC   having a hammerhead motif (HM) comprising: (i) at least 5 ribose
; CC   residues; (ii) a 2'-C-allyl modification at position 4 of the ENA; (iii)
; CC   at least ten 2'-O-methyl modifications; and (iv) a 3'-end modification.
; CC   The ENA's can inhibit collagenase and stromelysin production in the
; CC   synovial membrane of joints for the treatment or prevention of arthritis,
; CC   particularly osteoarthritis or rheumatoid arthritis. The ENA's can also
; CC   be used to treat antigen presenting cells of a donor to induce tolerance
; CC   in a recipient to an alloantigen of a donor. They can also be used for
; CC   enhancing graft tolerance or for treating autoimmune disease, and for
; CC   treating allergies and other inflammatory conditions. The ENA's can also
; CC   be used in diagnosis. Ribozyme therapy impacts on the expression of
; CC   stromelysin without introducing the non-specific effects upon gene
; CC   expression which accompany treatment with retinoids and dexamethasone.
; CC   The concentration of ribozyme required to affect a therapeutic treatment
; CC   is lower than that required of antisense molecules, and is highly
; CC   specific. The present sequence is used in the exemplification of the
; CC   present invention.
; XX
; SQ   Sequence 15 BP; 3 A; 4 C; 1 G; 7 U; 0 other;
;
;  AAX65146  Length: 15  October 16, 2003 08:46  Type: N  Check: 9004  ..
aax65146
```

```
  Query Match             0.3%;  Score 14;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1404 GATGCTAAAGATGA 1417
              ||||||||||||||
Db         14 GATGCTAAAGATGA 1

RESULT 229
aaa25447/c
;  TOIG of: aaa25447  check: 2775  from: 1  to: 17
;
; ID   AAA25447 standard; DNA; 17 BP.
; XX
; AC   AAA25447;
; XX
; DT   19-JUL-2000  (first entry)
; XX
; DE   Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1945.
; XX
; KW   Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
; KW   hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
; KW   gene expression modification; cancer; phosphorothioate; endonuclease;
; KW   anticancer; breast cancer; endometrium cancer; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO9954459-A2.
; XX
; PD   28 OCT-1999.
; XX
; PF   19-APR-1999;   99WO-US08547.
; XX
; PR   20-APR-1998;   98US-0082404.
; PR   23-JUN-1998;   98US-0103636.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC.
; XX
; PI   Thompson JD,  Beigelman L,  McSwiggen JA,  Karpeisky A,  Bellon L;
; PI   Reynolds M,  Zwick M,  Jarvis T,  Woolf T,  Haeberli P;
; PI   Matulic-Adamic J;
; XX
; DR   WPI; 2000-013248/01.
; XX
; PT   New nucleic acids that interact, and optionally cleave, target
; PT   sequences, used to treat cancer -
; XX
; PS   Claim 77; Page 79; 148pp; English.
; XX
; CC   The present invention describes nucleic acids (A) that interact stably
; CC   with a target sequence and contain at least one phosphoro(di)thioate
; CC   link, having endonuclease activity. (A), and more generally any
; CC   catalytic nucleic acid (A') that modulates expression of the oestrogen
; CC   receptor gene, are used to treat cancer (particularly of breast or
; CC   endometrium), in vivo or by transforming cells ex vivo and implanting
; CC   treated cells, or for other conditions associated with levels of
; CC   oestrogen receptor. Because of the high selectivity for targeted RNA, (A)
; CC   can also be used to correlate inhibition of gene expression with
; CC   alterations in phenotype, particularly for identification of therapeutic
; CC   targets, and as research reagents (for RNA, in the  same way that
; CC   restriction endonucleases are used with DNA). The combination of
; CC   modifications in (A) improves resistance to nucleases, binding affinity
; CC   and/or activity. AAA23503 to AAA24747 represent oestrogen receptor
; CC   hammerhead ribozyme sequences, and AAA24748 to AAA25992 represent their
; CC   corresponding target sequences. AAA25993 to AAA26105 represent oestrogen
; CC   receptor hairpin ribozyme sequences, and AAA26107 to AAA26218 represent
; CC   their corresponding target sequences. AAA26219 to AAA26271 represent
; CC   other ribozyme sequences and antisense oligonucleotides used in the
; CC   exemplification of the present invention.
; XX
; SQ   Sequence 17 BP; 1 A; 0 C; 1 G; 15 T; 0 other;
```

```
;
;  AAA25447  Length: 17  October 16, 2003 08:46  Type: N  Check: 2775  ..
aaa25447

  Query Match              0.3%;  Score 14;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 3;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       5207 AAAAAAAAAAAAAA 5220
              ||||||||||||||
Db         17 AAAAAAAAAAAAAA 4


RESULT 230
aaa25454
;  TOIG of: aaa25454  check: 2366  from: 1  to: 17
;
; ID   AAA25454 standard; DNA; 17 BP.
; XX
; AC   AAA25454;
; XX
; DT   19-JUL-2000  (first entry)
; XX
; DE   Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1952.
; XX
; KW   Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
; KW   hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
; KW   gene expression modification; cancer; phosphorothioate; endonuclease;
; KW   anticancer; breast cancer; endometrium cancer; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO9954459-A2.
; XX
; PD   28-OCT-1999.
; XX
; PF   19-APR-1999;   99WO-US08547.
; XX
; PR   20-APR-1998;   98US-0082404.
; PR   23-JUN-1998;   98US-0103636.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC.
; XX
; PI   Thompson JD,  Beigelman L,  McSwiggen JA,  Karpeisky A,  Bellon L;
; PI   Reynolds M,  Zwick M,  Jarvis T,  Woolf T,  Haeberli P;
; PI   Matulic-Adamic J;
; XX
; DR   WPI; 2000-013248/01.
; XX
; PT   New nucleic acids that interact, and optionally cleave, target
; PT   sequences, used to treat cancer
; XX
; PS   Claim 77; Page 79; 148pp; English.
; XX
; CC   The present invention describes nucleic acids (A) that interact stably
; CC   with a target sequence and contain at least one phosphoro(di)thioate
; CC   link, having endonuclease activity. (A), and more generally any
; CC   catalytic nucleic acid (A') that modulates expression of the oestrogen
; CC   receptor gene, are used to treat cancer (particularly of breast or
; CC   endometrium), in vivo or by transforming cells ex vivo and implanting
; CC   treated cells, or for other conditions associated with levels of
; CC   oestrogen receptor. Because of the high selectivity for targeted RNA, (A)
; CC   can also be used to correlate inhibition of gene expression with
; CC   alterations in phenotype, particularly for identification of therapeutic
; CC   targets, and as research reagents (for RNA, in the  same way that
; CC   restriction endonucleases are used with DNA). The combination of
; CC   modifications in (A) improves resistance to nucleases, binding affinity
; CC   and/or activity. AAA23503 to AAA24747 represent oestrogen receptor
; CC   hammerhead ribozyme sequences, and AAA24748 to AAA25992 represent their
; CC   corresponding target sequences. AAA25993 to AAA26105 represent oestrogen
; CC   receptor hairpin ribozyme sequences, and AAA26107 to AAA26218 represent
; CC   their corresponding target sequences. AAA26219 to AAA26271 represent
; CC   other ribozyme sequences and antisense oligonucleotides used in the
; CC   exemplification of the present invention.
; XX
; SQ   Sequence 17 BP; 1 A; 3 C; 1 G; 15 T; 0 other;
;
;  AAA25454  Length: 17  October 16, 2003 08:46  Type: N  Check: 2366  ..
aaa25454

  Query Match              0.3%;  Score 14;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4503 TTTTTTTTTTTTTG 4516
              ||||||||||||||
Db          1 TTTTTTTTTTTTTG 14


RESULT 231
aaf02904
;  TOIG of: aaf02904  check: 810  from: 1  to: 17
;
; ID   AAF02904 standard; DNA; 17 BP.
; XX
; AC   AAF02904;
; XX
; DT   16-FEB-2001  (first entry)
; XX
; DE   Hammerhead ribozyme substrate #1199.
; XX
; KW   Ribozyme; erythropoietin; granulocyte colony stimulating factor;
; KW   interferon alpha; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO200061729-A2.
; XX
; PD   19-OCT-2000.
; XX
; PF   11-APR-2000; 2000WO-US09921.
; XX
; PR   12-APR-1999;   99US-0129390.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC.
; XX
; PI   Blatt L,  Zwick M,  Pavco P,  McSwiggen J;
; XX
; DR   WPI; 2000-647423/62.
; XX
; PT   Enzymatic and antisense nucleic acid inhibition of repressor genes.
; PT   useful for producing e.g. granulocyte colony stimulating factor
; PT   protein, interferon alpha and erythropoietin -
; XX
; PS   Claim 37; Page 83; 164pp; English.
; XX
; CC   The present invention relates to enzymatic and antisense nucleic acid
; CC   molecules that act as inhibitors of the expression of repressor genes
; CC   encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA
; CC   transcription factor gene, IRF-2 and/or the CAATT Displacement
; CC   Protein (CDP). Inhibition of the repressors removes prevents
; CC   inhibition (and consequently increases expression of) genes involved in
; CC   the production of erythropoietin, granulocyte colony stimulating factor
; CC   protein and interferon alpha.
; XX
; SQ   Sequence 17 BP; 6 A; 8 C; 0 G; 3 T; 0 other;
;
;  AAF02904  Length: 17  October 16, 2003 08:46  Type: N  Check: 810  ..
aaf02904

  Query Match              0.3%;  Score 14;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1126 CCACAACTACCACC 1139
              ||||||||||||||
```

```
Db          1 CCACAACTACCACC 14


RESULT 232
aal51321
;  TOIG of: aal51321  check: 2638  from: 1  to: 17
;
; ID   AAL51321 standard; DNA; 17 BP.
; XX
; AC   AAL51321;
; XX
; DT   20-MAR-2003  (first entry)
; XX
; DE   Single-stranded circular DNA library related oligo, SEQ ID No 18.
; XX
; KW   Antisense therapy; functional genomics; ss;
; KW   single-stranded circular nucleic acids library; cancer; viral infection;
; KW   human papilloma virus; HIV; smallpox; Epstein-Barr virus; hepatitis;
; KW   respiratory syncytial virus; metabolic disease; primary hypothyroidism;
; KW   phenylketonuria; galactosaemia; abnormal haemoglobins; diabetes; obesity;
; KW   immunologic disorder; Sjogren's syndrome; antiphospholipid syndrome;
; KW   immune complex disease; purpura; Henoch-Schoenlein; immunodeficiency;
; KW   immunologic deficiency syndrome; systemic lupus erythematosus;
; KW   rheumatism; kidney sclerosis; liver sclerosis.
; XX
; OS   Unidentified.
; XX
; PN   WO200292808-A1.
; XX
; PD   21-NOV-2002.
; XX
; PF   09-MAR-2002; 2002WO-IB00735.
; XX
; PR   17-MAY-2001; 2001KR-0027071.
; XX
; PA   (WELG-) WELGENE INC.
; XX
; PI   Park J,  Moon I,  Lee Y;
; XX
; DR   WPI; 2003-120687/11.
; XX
; PT   Library of a multitude of single-stranded circular antisense nucleic
; PT   acids, useful for functional genomics, and treatment of various
; PT   disorders such as cancer, viral infection, metabolic and immunologic
; PT   disorders
; XX
; PS   Disclosure; Fig 9; 87pp; English.
; XX
; CC   The invention comprises a library consisting of a multitude of single-
; CC   stranded circular nucleic acids. The library of the invention is useful
; CC   for functional genomics and the treatment of: cancer; viral infection
; CC   (e.g. human papilloma virus, HIV, smallpox, Epstein Barr virus, hepatitis
; CC   or respiratory syncytial virus); metabolic disease (e.g. phenylketonuria,
; CC   primary hypothyroidism, galactosaemia, abnormal haemoglobins, type I and
; CC   II diabetes or obesity); and immunologic disorders (e.g. Sjogren's
; CC   syndrome, antiphospholipid syndrome, immune complex diseases, purpura,
; CC   Henoch-Schoenlein, immunologic deficiency syndromes, systemic lupus
; CC   erythematosus, immunodeficiency, rheumatism, and kidney or liver
; CC   sclerosis). The present DNA sequence represents an oligonucleotide shown
; CC   in a figure of the invention.
; XX
; SQ   Sequence 17 BP; 1 A; 1 C; 2 G; 13 T; 0 other;
;
;  AAL51321  Length: 17  October 16, 2003 08:46  Type: N  Check: 2638  ..
aal51321

  Query Match              0.3%;  Score 14;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4499 AGTTTTTTTTTTTT 4512
              ||||||||||||||
Db          4 AGTTTTTTTTTTTT 17


RESULT 233
abk17648/c
;  TOIG of: abk17648  check: 1187  from: 1  to: 17
;
; ID   ABK17648 standard; RNA; 17 BP.
; XX
; AC   ABK17648;
; XX
; DT   09-APR-2002  (first entry)
; XX
; DE   Human ERG hammerhead ribozyme target sequence, Seq ID No 295.
; XX
; KW   Human; hammerhead ribozyme; cytostatic; antitumour; antidiabetic;
; KW   ophthalmological; antiarthritic; antipsoriatic; virucide; osteopathic;
; KW   vulnerary; cancer; lymphoma; Ewing's sarcoma; melanoma; psoriasis;
; KW   tumour angiogenesis; diabetic retinopathy; macular degeneration;
; KW   neovascular glaucoma; myopic degeneration; arthritis; verruca vulgaris;
; KW   angiofibroma of tuberous sclerosis; port-wine stain; wound healing;
; KW   Sturge Weber syndrome; Kippel Trenaunay-Weber syndrome; leukaemia; ss;
; KW   Osler-Weber-rendu syndrome; leukaemia; osteoporosis; DNAzyme; inozyme;
; KW   amberzyme.
; XX
; OS   Homo sapiens.
; XX
; PN   WO200188124-A2.
; XX
; PD   22-NOV-2001.
; XX
; PF   16-MAY 2001; 2001WO-US15866.
; XX
; PR   16-MAY-2000; 2000US-0572021.
; XX
; PA   (RIBO ) RIBOZYME PHARM INC.
; PA   (GLAX ) GLAXO GROUP LTD.
; XX
; PI   Jarvis T,  Von Carlowitz I,  McSwiggen JA,  Mclaughlin F,  Pandi AK;
; XX
; DR   WPI; 2002-082995/11.
; XX
; PT   Novel polynucleotide which down regulates expression of Ets-related
; PT   gene, useful for treating cancer, diabetic retinopathy, macular
; PT   degeneration, arthritis, psoriasis, verruca vulgaris and Sturge Weber
; PT   syndrome
; XX
; PS   Claim 4; Page 64; 149pp; English.
; XX
; CC   The invention relates to a nucleic acid molecule (I) which down regulates
; CC   expression of an Ets-related gene (ERG). (I) is useful for treating
; CC   conditions selected from cancer, lymphoma, Ewing's sarcoma, melanoma,
; CC   tumour angiogenesis, diabetic retinopathy, macular degeneration,
; CC   neovascular glaucoma, myopic degeneration, arthritis, psoriasis, verruca
; CC   vulgaris, angiofibroma of tuberous sclerosis, port-wine stains, Sturge
; CC   Weber syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-rendu
; CC   syndrome, leukaemia, osteoporosis and wound healing. (I) is useful for
; CC   treating a patient having a condition associated with the level of ERG,
; CC   by contacting cells of the patient with (I) under conditions suitable for
; CC   the treatment. The method comprises the use of one or more therapies
; CC   under conditions suitable for the treatment. Leukaemia or tumour
; CC   angiogenesis is treated by administering (I) to the patient in
; CC   conjunction with one or more of other therapies such as radiation or
; CC   chemotherapy treatment. (I) is useful for reducing ERG activity in a
; CC   cell, by contacting the cell with (I). (I) is useful for cleaving RNA of
; CC   ERG gene, by contacting (I) with RNA, in the presence of a divalent
; CC   cation such as Mg2+. (I) is useful for diagnosis of conditions and
; CC   diseases related to the expression of ERG, and as diagnostic tool to
; CC   examine genetic drift and mutations within diseased cells or to detect
; CC   the presence of ERG RNA in a cell. (I) is useful for specifically
; CC   targeting genes that share homology with ERG gene or ERG fusion genes.
; CC   ABK17354-ABK22719 represent nucleic acids, including antisense and
; CC   enzymatic nucleic acid molecules which regulate expression of ERG, and
; CC   related PCR primers of the invention.
```

```
; XX
; SQ   Sequence 17 BP; 7 A; 4 C; 1 G; 5 U; 0 other;
;
;  ABK17648  Length: 17  October 16, 2003 08:46  Type: N  Check: 1187  ..
abk17648

  Query Match              0.3%;  Score 14;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4481 GAATGTATTTGATT 4494
              ||||||||||||||
Db         14 GAATGTATTTGATT 1


RESULT 234
abk18167
;  TOIG of: abk18167  check: 609  from: 1  to: 17
;
; ID   ABK18167 standard; RNA; 17 BP.
; XX
; AC   ABK18167;
; XX
; DT   09-APR-2002  (first entry)
; XX
; DE   Human ERG hammerhead ribozyme target sequence, Seq ID No 814.
; XX
; KW   Human; hammerhead ribozyme; cytostatic; antitumour; antidiabetic;
; KW   ophthalmological; antiarthritic; antipsoriatic; virucide; osteopathic;
; KW   vulnerary; cancer; lymphoma; Ewing's sarcoma; melanoma; psoriasis;
; KW   tumour angiogenesis; diabetic retinopathy; macular degeneration;
; KW   neovascular glaucoma; myopic degeneration; arthritis; verruca vulgaris;
; KW   angiofibroma of tuberous sclerosis; port-wine stain; wound healing;
; KW   Sturge Weber syndrome; Kippel-Trenaunay-Weber syndrome; leukaemia; ss;
; KW   Osler-Weber-rendu syndrome, leukaemia; osteoporosis; DNAzyme; inozyme;
; KW   amberzyme.
; XX
; OS   Homo sapiens.
; XX
; PN   WO200188124-A2.
; XX
; PD   22-NOV-2001.
; XX
; PF   16-MAY-2001; 2001WO-US15866.
; XX
; PR   16-MAY-2000; 2000US-0572021.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC.
; PA   (GLAX ) GLAXO GROUP LTD.
; XX
; PI   Jarvis T,  Von Carlowitz I,  McSwiggen JA,  Mclaughlin F,  Randi AM;
; XX
; DR   WPI; 2002-082995/11.
; XX
; PT   Novel polynucleotide which down regulates expression of Ets-related
; PT   gene, useful for treating cancer, diabetic retinopathy, macular
; PT   degeneration, arthritis, psoriasis, verruca vulgaris and Sturge Weber
; PT   syndrome  -
; XX
; PS   Claim 4; Page 73; 149pp; English.
; XX
; CC   The invention relates to a nucleic acid molecule (I) which down regulates
; CC   expression of an Ets-related gene (ERG). (I) is useful for treating
; CC   conditions selected from cancer, lymphoma, Ewing's sarcoma, melanoma,
; CC   tumour angiogenesis, diabetic retinopathy, macular degeneration,
; CC   neovascular glaucoma, myopic degeneration, arthritis, psoriasis, verruca
; CC   vulgaris, angiofibroma of tuberous sclerosis, port-wine stains, Sturge
; CC   Weber syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-rendu
; CC   syndrome, leukaemia, osteoporosis and wound healing. (I) is useful for
; CC   treating a patient having a condition associated with the level of ERG,
; CC   by contacting cells of the patient with (I) under conditions suitable for
; CC   the treatment. The method comprises the use of one or more therapies
; CC   under conditions suitable for the treatment. Leukaemia or tumour
; CC   angiogenesis is treated by administering (I) to the patient in
; CC   conjunction with one or more of other therapies such as radiation or
; CC   chemotherapy treatment. (I) is useful for reducing ERG activity in a
; CC   cell, by contacting the cell with (I). (I) is useful for cleaving RNA of
; CC   ERG gene, by contacting (I) with RNA, in the presence of a divalent
; CC   cation such as Mg2+. (I) is useful for diagnosis of conditions and
; CC   diseases related to the expression of ERG, and as diagnostic tool to
; CC   examine genetic drift and mutations within diseased cells or to detect
; CC   the presence of ERG RNA in a cell. (I) is useful for specifically
; CC   targeting genes that share homology with ERG gene or ERG fusion genes.
; CC   ABK17354-ABK22719 represent nucleic acids, including antisense and
; CC   enzymatic nucleic acid molecules which regulate expression of ERG, and
; CC   related PCR primers of the invention.
; XX
; SQ   Sequence 17 BP; 8 A; 4 C; 2 G; 3 U; 0 other;
;
;  ABK18167  Length: 17  October 16, 2003 08:46  Type: N  Check: 609  ..
abk18167

  Query Match              0.3%;  Score 14;  DB 1;  Length 17;
  Best Local Similarity   78.6%;  Pred. No. 0;
  Matches   11;  Conservative    3;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1061 TATGACAAGAACAT 1074
              :|:|||||: |||:
Db          3 UAUGACAAGAACAU 16


RESULT 235
abk18367/c
;  TOIG of: abk18367  check: 1107  from: 1  to: 17
;
; ID   ABK18367 standard; RNA; 17 BP.
; XX
; AC   ABK18367;
; XX
; DT   09-APR-2002  (first entry)
; XX
; DE   Human ERG hammerhead ribozyme target sequence, Seq ID No 1014.
; XX
; KW   Human; hammerhead ribozyme; cytostatic; antitumour; antidiabetic;
; KW   ophthalmological; antiarthritic; antipsoriatic; virucide; osteopathic;
; KW   vulnerary; cancer; lymphoma; Ewing's sarcoma; melanoma; psoriasis;
; KW   tumour angiogenesis; diabetic retinopathy; macular degeneration;
; KW   neovascular glaucoma; myopic degeneration; arthritis; verruca vulgaris;
; KW   angiofibroma of tuberous sclerosis; port-wine stain; wound healing;
; KW   Sturge Weber syndrome; Kippel-Trenaunay-Weber syndrome; leukaemia; ss;
; KW   Osler-Weber-rendu syndrome, leukaemia; osteoporosis; DNAzyme; inozyme;
; KW   amberzyme.
; XX
; OS   Homo sapiens.
; XX
; PN   WO200188124-A2.
; XX
; PD   22-NOV-2001.
; XX
; PF   16-MAY-2001; 2001WO-US15866.
; XX
; PR   16-MAY-2000; 2000US-0572021.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC.
; PA   (GLAX ) GLAXO GROUP LTD.
; XX
; PI   Jarvis T,  Von Carlowitz I,  McSwiggen JA,  Mclaughlin F,  Randi AM;
; XX
; DR   WPI; 2002-082995/11.
; XX
; PT   Novel polynucleotide which down regulates expression of Ets-related
; PT   gene, useful for treating cancer, diabetic retinopathy, macular
; PT   degeneration, arthritis, psoriasis, verruca vulgaris and Sturge Weber
; PT   syndrome  -
; XX
; PS   Claim 4; Page 77; 149pp; English.
```

```
; XX
; CC   The invention relates to a nucleic acid molecule (I) which down regulates
; CC   expression of an Ets-related gene (ERG). (I) is useful for treating
; CC   conditions selected from cancer, lymphoma, Ewing's sarcoma, melanoma,
; CC   tumour angiogenesis, diabetic retinopathy, macular degeneration,
; CC   neovascular glaucoma, myopic degeneration, arthritis, psoriasis, verruca
; CC   vulgaris, angiofibroma of tuberous sclerosis, port-wine stains, Sturge
; CC   Weber syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-rendu
; CC   syndrome, leukaemia, osteoporosis and wound healing. (I) is useful for
; CC   treating a patient having a condition associated with the level of ERG,
; CC   by contacting cells of the patient with (I) under conditions suitable for
; CC   the treatment. The method comprises the use of one or more therapies
; CC   under conditions suitable for the treatment. Leukaemia or tumour
; CC   angiogenesis is treated by administering (I) to the patient in
; CC   conjunction with one or more of other therapies such as radiation or
; CC   chemotherapy treatment. (I) is useful for reducing ERG activity in a
; CC   cell, by contacting the cell with (I). (I) is useful for cleaving RNA of
; CC   ERG gene, by contacting (I) with RNA, in the presence of a divalent
; CC   cation such as Mg2+. (I) is useful for diagnosis of conditions and
; CC   diseases related to the expression of ERG, and as diagnostic tool to
; CC   examine genetic drift and mutations within diseased cells or to detect
; CC   the presence of ERG RNA in a cell. (I) is useful for specifically
; CC   targeting genes that share homology with ERG gene or ERG fusion genes.
; CC   ABK17354-ABK22719 represent nucleic acids, including antisense and
; CC   enzymatic nucleic acid molecules which regulate expression of ERG, and
; CC   related PCR primers of the invention.
; XX
; SQ   Sequence 17 BP; 8 A; 2 C; 1 G; 6 U; 0 other;
;
;  ABK18367  Length: 17  October 16, 2003 08:46  Type: N  Check: 1107  ..
abk18367

  Query Match             0.3%;  Score 14;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4482 AATGTATTTGATTT 4495
              ||||||||||||||
Db         17 AATGTATTTGATTT 4

RESULT 236
abt35361/c
;  TOIG of: abt35361  check: 623  from: 1  to: 17
;
; ID   ABT35361 standard; DNA; 17 BP.
; XX
; AC   ABT35361;
; XX
; DT   12-JUN-2003  (first entry)
; XX
; DE   Tumour suppression related human fukutin oligo SEQ ID No 998.
; XX
; KW   Cytostatic; virucide; neuroprotective; nootropic; neuroleptic; gene chip;
; KW   antisense; sense; tumour; cell degeneration; cancer; Alzheimer's disease;
; KW   schizophrenia; protein chip; gene therapy; tumour suppression;
; KW   human fukutin; ds.
; XX
; OS   Homo sapiens.
; XX
; PN   WO2003025175-A2.
; XX
; PD   27-MAR-2003.
; XX
; PF   17-SEP-2002; 2002WO-IB04208.
; XX
; PR   17-SEP-2001; 2001FR-0011978.
; XX
; PA   (MOLE-) MOLECULAR ENGINES LAB.
; XX
; PI   Telerman A,  Amson R,  Tuijnder M;
; XX
; DR   WPI; 2003-313353/30.
; XX
; PT   New isolated nucleic acid, useful for treating viral diseases
; PT   associated with tumors and cell degeneration, also related
; PT   polypeptides, antibodies and transfected cells  -
; XX
; PS   Disclosure; Page 149; 720pp; French.
; XX
; CC   The invention relates to a novel isolated 17 mer nucleic acid sequence,
; CC   given in the specification, a sequence containing at least 15
; CC   consecutive nucleotides from the 17 mer sequence, a sequence with, after
; CC   optimal alignment, at least 80 % identity to the 17 mer sequence, a
; CC   sequence that hybridizes to them under highly stringent conditions, or
; CC   the complement of any of them, or the corresponding RNA. The novel
; CC   isolated nucleic acids of the invention are useful as probes and primers
; CC   for detecting, identifying, quantifying and/or amplifying a nucleic acid,
; CC   e.g. as one component of a gene chip, in vitro as (anti)sense reagents,
; CC   and for production of recombinant polypeptides. Any of the nucleic acids,
; CC   polypeptides, vectors containing the nucleic acids, cells containing the
; CC   vector or antibodies directed against the polypeptides are useful for
; CC   preparation of pharmaceuticals for prevention and/or treatment of viral
; CC   diseases that are characterised by development of tumours or cell
; CC   degeneration, specifically cancer but also Alzheimer's disease and
; CC   schizophrenia. Analysis of the expression of the 17 mer nucleic acids in
; CC   patient samples is useful for diagnosis and/or prognosis of these
; CC   diseases. The polypeptides can also be used to generate antibodies, and
; CC   both the polypeptide and antibodies are useful as components of protein
; CC   chips. The nucleic acid sequences of the invention can be used in gene
; CC   therapy. This polynucleotide sequence represents a tumour suppression
; CC   related human fukutin oligonucleotide of the invention.
; XX
; SQ   Sequence 17 BP; 6 A; 2 C; 4 G; 4 T; 0 other;
;
;  ABT35361  Length: 17  October 16, 2003 08:46  Type: N  Check: 623  ..
abt35361

  Query Match             0.3%;  Score 14;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       2892 TCTTTGACCAGATC 2905
              ||||||||||||||
Db         14 TCTTTGACCAGATC 1

RESULT 237
abt37683/c
;  TOIG of: abt37683  check: 835  from: 1  to: 17
;
; ID   ABT37683 standard; DNA; 17 BP.
; XX
; AC   ABT37683;
; XX
; DT   12-JUN-2003  (first entry)
; XX
; DE   Tumour suppression related human fukutin oligo SEQ ID No 3320.
; XX
; KW   Cytostatic; virucide; neuroprotective; nootropic; neuroleptic; gene chip;
; KW   antisense; sense; tumour; cell degeneration; cancer; Alzheimer's disease;
; KW   schizophrenia; protein chip; gene therapy; tumour suppression;
; KW   human fukutin; ds.
; XX
; OS   Homo sapiens.
; XX
; PN   WO2003025175-A2.
; XX
; PD   27-MAR-2003.
; XX
; PF   17-SEP-2002; 2002WO-IB04208.
; XX
; PR   17-SEP-2001; 2001FR-0011978.
; XX
; PA   (MOLE-) MOLECULAR ENGINES LAB.
; XX
```

; PI Telerman A, Amson R, Tuijnder M;
; XX
; DR WPI; 2003-313353/30.
; XX
; PT New isolated nucleic acid, useful for treating viral diseases
; PT associated with tumors and cell degeneration, also related
; PT polypeptides, antibodies and transfected cells -
; XX
; PS Disclosure; Page 422; 720pp; French.
; XX
; CC The invention relates to a novel isolated 17 mer nucleic acid sequence,
; CC given in the specification, a sequence containing at least 15
; CC consecutive nucleotides from the 17 mer sequence, a sequence with, after
; CC optimal alignment, at least 80 % identity to the 17 mer sequence, a
; CC sequence that hybridizes to them under highly stringent conditions, or
; CC the complement of any of them, or the corresponding RNA. The novel
; CC isolated nucleic acids of the invention are useful as probes and primers
; CC for detecting, identifying, quantifying and/or amplifying a nucleic acid,
; CC e.g. as one component of a gene chip, in vitro as (anti)sense reagents,
; CC and for production of recombinant polypeptides. Any of the nucleic acids,
; CC polypeptides, vectors containing the nucleic acids, cells containing the
; CC vector or antibodies directed against the polypeptides are useful for
; CC preparation of pharmaceuticals for prevention and/or treatment of viral
; CC diseases that are characterised by development of tumours or cell
; CC degeneration, specifically cancer but also Alzheimer's disease and
; CC schizophrenia. Analysis of the expression of the 17 mer nucleic acids in
; CC patient samples is useful for diagnosis and/or prognosis of these
; CC diseases. The polypeptides can also be used to generate antibodies, and
; CC both the polypeptide and antibodies are useful as components of protein
; CC chips. The nucleic acid sequences of the invention can be used in gene
; CC therapy. This polynucleotide sequence represents a tumour suppression
; CC related human fukutin oligonucleotide of the invention.
; XX
; SQ Sequence 17 BP; 5 A; 5 C; 4 G; 3 T; 0 other;
;
; ABT37683 Length: 17 October 16, 2003 08:46 Type: N Check: 835 ..
abt37683

Query Match 0.3%; Score 14; DB 1; Length 17;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy       4822 AGCATTTTGGGATC 4835
              ||||||||||||||
Db         14 AGCATTTTGGGATC 1
```

RESULT 238
aaa25185
; TOIG of: aaa25185 check: 2077 from: 1 to: 17
;
; ID AAA25185 standard; DNA; 17 BP.
; XX
; AC AAA25185;
; XX
; DT 19-JUL-2000 (first entry)
; XX
; DE Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1683.
; XX
; KW Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
; KW hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
; KW gene expression modification; cancer; phosphorothioate; endonuclease;
; KW anticancer; breast cancer; endometrium cancer; ss.
; XX
; OS Homo sapiens.
; XX
; PN WO9954459-A2.
; XX
; PD 28-OCT-1999.
; XX
; PF 19-APR-1999; 99WO-US08547.
; XX
; PR 20-APR-1998; 98US-0082404.
; PR 23-JUN-1998; 98US-0103636.
; XX
; PA (RIBO-) RIBOZYME PHARM INC.
; XX
; PI Thompson JD, Beigelman L, McSwiggen JA, Karpeisky A, Bellon L;
; PI Reynolds M, Zwick M, Jarvis T, Woolf T, Haeberli P;
; PI Matulic-Adamic J;
; XX
; DR WPI; 2000-013248/01.
; XX
; PT New nucleic acids that interact, and optionally cleave, target
; PT sequences, used to treat cancer -
; XX
; PS Claim 77; Page 71; 148pp; English.
; XX
; CC The present invention describes nucleic acids (A) that interact stably
; CC with a target sequence and contain at least one phosphoro(di)thioate
; CC link, having endonuclease activity. (A), and more generally any
; CC catalytic nucleic acid (A') that modulates expression of the oestrogen
; CC receptor gene, are used to treat cancer (particularly of breast or
; CC endometrium), in vivo or by transforming cells ex vivo and implanting
; CC treated cells, or for other conditions associated with levels of
; CC oestrogen receptor. Because of the high selectivity for targeted RNA, (A)
; CC can also be used to correlate inhibition of gene expression with
; CC alterations in phenotype, particularly for identification of therapeutic
; CC targets, and as research reagents (for RNA, in the same way that
; CC restriction endonucleases are used with DNA). The combination of
; CC modifications in (A) improves resistance to nucleases, binding affinity
; CC and/or activity. AAA23503 to AAA24747 represent oestrogen receptor
; CC hammerhead ribozyme sequences, and AAA24748 to AAA25992 represent their
; CC corresponding target sequences. AAA25993 to AAA26105 represent oestrogen
; CC receptor hairpin ribozyme sequences, and AAA26107 to AAA26218 represent
; CC their corresponding target sequences. AAA26219 to AAA26271 represent
; CC other ribozyme sequences and antisense oligonucleotides used in the
; CC exemplification of the present invention.
; XX
; SQ Sequence 17 BP; 2 A; 0 C; 2 G; 13 T; 0 other;
;
; AAA25185 Length: 17 October 16, 2003 08:46 Type: N Check: 2077 ..
aaa25185

Query Match 0.3%; Score 13.9; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 0;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

```
Qy       4505 TTTTTTTTTTTGGGTTA 4521
              |||| |||||| |||:
Db          1 TTTTTATTTTTGTGTTA 17
```

RESULT 239
aaa25455/c
; TOIG of: aaa25455 check: 2075 from: 1 to: 17
;
; ID AAA25455 standard; DNA; 17 BP
; XX
; AC AAA25455;
; XX
; DT 19-JUL-2000 (first entry)
; XX
; DE Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1953.
; XX
; KW Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
; KW hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
; KW gene expression modification; cancer; phosphorothioate; endonuclease;
; KW anticancer; breast cancer; endometrium cancer; ss.
; XX
; OS Homo sapiens.
; XX
; PN WO9954459-A2.
; XX
; PD 28-OCT-1999.
; XX

```
; PF   19-APR-1999;   99WO-US08547.
; XX
; PR   20-APR-1998;   98US-0082404.
; PR   23-JUN-1998;   98US-0103636.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC.
; XX
; PI   Thompson JD, Beigelman L, McSwiggen JA, Karpeisky A, Bellon L;
; PI   Reynolds M, Zwick M, Jarvis T, Woolf T, Haeberli P;
; PI   Matulic-Adamic J;
; XX
; DR   WPI; 2000-013248/01.
; XX
; PT   New nucleic acids that interact, and optionally cleave, target
; PT   sequences, used to treat cancer -
; XX
; PS   Claim 77; Page 79; 148pp; English.
; XX
; CC   The present invention describes nucleic acids (A) that interact stably
; CC   with a target sequence and contain at least one phosphoro(di)thioate
; CC   link, having endonuclease activity. (A), and more generally any
; CC   catalytic nucleic acid (A') that modulates expression of the oestrogen
; CC   receptor gene, are used to treat cancer (particularly of breast or
; CC   endometrium), in vivo or by transforming cells ex vivo and implanting
; CC   treated cells, or for other conditions associated with levels of
; CC   oestrogen receptor. Because of the high selectivity for targeted RNA, (A)
; CC   can also be used to correlate inhibition of gene expression with
; CC   alterations in phenotype, particularly for identification of therapeutic
; CC   targets, and as research reagents (for RNA, in the same way that
; CC   restriction endonucleases are used with DNA). The combination of
; CC   modifications in (A) improves resistance to nucleases, binding affinity
; CC   and/or activity. AAA23503 to AAA24747 represent oestrogen receptor
; CC   hammerhead ribozyme sequences, and AAA24748 to AAA25992 represent their
; CC   corresponding target sequences. AAA25993 to AAA26105 represent oestrogen
; CC   receptor hairpin ribozyme sequences, and AAA26107 to AAA26218 represent
; CC   their corresponding target sequences. AAA26219 to AAA26271 represent
; CC   other ribozyme sequences and antisense oligonucleotides used in the
; CC   exemplification of the present invention.
; XX
; SQ   Sequence 17 BP; 2 A; 0 C; 1 G; 14 T; 0 other;
;
;  AAA25455  Length: 17  October 16, 2003 08:46  Type: N  Check: 2075  ..
aaa25455

  Query Match             0.3%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       5204 TCTAAAAAAAAAAAAAA 5220
              | || ||||||||||||
Db         17 TATACAAAAAAAAAAAA 1


RESULT 240
aaa25537/c
;  TOIG of: aaa25537  check: 1880  from: 1  to: 17
;
; ID   AAA25537 standard; DNA; 17 BP.
; XX
; AC   AAA25537;
; XX
; DT   19-JUL-2000  (first entry)
; XX
; DE   Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:2035.
; XX
; KW   Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
; KW   hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
; KW   gene expression modification; cancer; phosphorothioate; endonuclease;
; KW   anticancer; breast cancer; endometrium cancer; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO9954459-A2.
; XX
; PD   28-OCT-1999.
; XX
; PF   19-APR-1999;   99WO-US08547.
; XX
; PR   20-APR-1998;   98US-0082404.
; PR   23-JUN-1998;   98US-0103636.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC.
; XX
; PI   Thompson JD, Beigelman L, McSwiggen JA, Karpeisky A, Bellon L;
; PI   Reynolds M, Zwick M, Jarvis T, Woolf T, Haeberli P;
; PI   Matulic-Adamic J;
; XX
; DR   WPI; 2000-013248/01.
; XX
; PT   New nucleic acids that interact, and optionally cleave, target
; PT   sequences, used to treat cancer
; XX
; PS   Claim 77; Page 82; 148pp; English.
; XX
; CC   The present invention describes nucleic acids (A) that interact stably
; CC   with a target sequence and contain at least one phosphoro(di)thioate
; CC   link, having endonuclease activity. (A), and more generally any
; CC   catalytic nucleic acid (A') that modulates expression of the oestrogen
; CC   receptor gene, are used to treat cancer (particularly of breast or
; CC   endometrium), in vivo or by transforming cells ex vivo and implanting
; CC   treated cells, or for other conditions associated with levels of
; CC   oestrogen receptor. Because of the high selectivity for targeted RNA, (A)
; CC   can also be used to correlate inhibition of gene expression with
; CC   alterations in phenotype, particularly for identification of therapeutic
; CC   targets, and as research reagents (for RNA, in the same way that
; CC   restriction endonucleases are used with DNA). The combination of
; CC   modifications in (A) improves resistance to nucleases, binding affinity
; CC   and/or activity. AAA23503 to AAA24747 represent oestrogen receptor
; CC   hammerhead ribozyme sequences, and AAA24748 to AAA25992 represent their
; CC   corresponding target sequences. AAA25993 to AAA26105 represent oestrogen
; CC   receptor hairpin ribozyme sequences, and AAA26107 to AAA26218 represent
; CC   their corresponding target sequences. AAA26219 to AAA26271 represent
; CC   other ribozyme sequences and antisense oligonucleotides used in the
; CC   exemplification of the present invention.
; XX
; SQ   Sequence 17 BP; 3 A; 1 C; 2 G; 11 T; 0 other;
;
;  AAA25537  Length: 17  October 16, 2003 08:46  Type: N  Check: 1880  ..
aaa25537

  Query Match             0.3%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       3967 TAAACAATAAAAACAAC 3983
              |||||| ||||| || |
Db         17 TAAACATTAAAAAGAAC 1


RESULT 241
aaa25538/c
;  TOIG of: aaa25538  check: 1880  from: 1  to: 17
;
; ID   AAA25538 standard; DNA; 17 BP.
; XX
; AC   AAA25538;
; XX
; DT   19-JUL-2000  (first entry)
; XX
; DE   Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:2036.
; XX
; KW   Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
; KW   hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
; KW   gene expression modification; cancer; phosphorothioate; endonuclease;
; KW   anticancer; breast cancer; endometrium cancer; ss.
; XX
```

```
; OS   Homo sapiens.
; XX
; PN   WO9954459-A2.
; XX
; PD   28-OCT-1999.
; XX
; PF   19-APR-1999;   99WO-US08547.
; XX
; PR   20-APR-1998;   98US-0082404.
; PR   23-JUN-1998;   98US-0103636.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC.
; XX
; PI   Thompson JD, Beigelman L, McSwiggen JA, Karpeisky A, Bellon L;
; PI   Reynolds M, Zwick M, Jarvis T, Woolf T, Haeberli P;
; PI   Matulic-Adamic J;
; XX
; DR   WPI; 2000-013248/01.
; XX
; PT   New nucleic acids that interact, and optionally cleave, target
; PT   sequences, used to treat cancer
; XX
; PS   Claim 77; Page 82; 148pp; English.
; XX
; CC   The present invention describes nucleic acids (A) that interact stably
; CC   with a target sequence and contain at least one phosphoro(di)thioate
; CC   link, having endonuclease activity. (A), and more generally any
; CC   catalytic nucleic acid (A') that modulates expression of the oestrogen
; CC   receptor gene, are used to treat cancer (particularly of breast or
; CC   endometrium), in vivo or by transforming cells ex vivo and implanting
; CC   treated cells, or for other conditions associated with levels of
; CC   oestrogen receptor. Because of the high selectivity for targeted RNA, (A)
; CC   can also be used to correlate inhibition of gene expression with
; CC   alterations in phenotype, particularly for identification of therapeutic
; CC   targets, and as research reagents (for RNA, in the  same way that
; CC   restriction endonucleases are used with DNA). The combination of
; CC   modifications in (A) improves resistance to nucleases, binding affinity
; CC   and/or activity. AAA23503 to AAA24747 represent oestrogen receptor
; CC   hammerhead ribozyme sequences, and AAA24748 to AAA25992 represent their
; CC   corresponding target sequences. AAA25993 to AAA26105 represent oestrogen
; CC   receptor hairpin ribozyme sequences, and AAA26107 to AAA26218 represent
; CC   their corresponding target sequences. AAA26219 to AAA26271 represent
; CC   other ribozyme sequences and antisense oligonucleotides used in the
; CC   exemplification of the present invention.
; XX
; SQ   Sequence 17 BP; 3 A; 1 C; 1 G; 12 T; 0 other;
;
;  AAA25538  Length: 17  October 16, 2003 08:46  Type: N  Check: 1980  ..
aaa25538

  Query Match             0.3%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       3966 ATAAACAATAAAAACAA 3982
              ||||||| |||||| ||
Db         17 ATAAACATTAAAAAGAA 1


RESULT 242
aaa25846/c
;  TOIG of: aaa25846  check: 1912  from: 1  to: 17
;
; ID   AAA25846 standard; DNA; 17 BP.
; XX
; AC   AAA25846;
; XX
; DT   19-JUL-2000  (first entry)
; XX
; DE   Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:2344.
; XX
; KW   Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
; KW   hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
; KW   gene expression modification; cancer; phosphorothioate; endonuclease;
; KW   anticancer; breast cancer; endometrium cancer; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO9954459 A2.
; XX
; PD   28-OCT-1999.
; XX
; PF   19-APR-1999;   99WO-US08547.
; XX
; PR   20-APR-1998;   98US-0082404.
; PR   23-JUN-1998;   98US-0103636.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC.
; XX
; PI   Thompson JD, Beigelman L, McSwiggen JA, Karpeisky A, Bellon L;
; PI   Reynolds M, Zwick M, Jarvis T, Woolf T, Haeberli P;
; PI   Matulic-Adamic J;
; XX
; DR   WPI; 2000-013248/01.
; XX
; PT   New nucleic acids that interact, and optionally cleave, target
; PT   sequences, used to treat cancer
; XX
; PS   Claim 77; Page 92; 148pp; English.
; XX
; CC   The present invention describes nucleic acids (A) that interact stably
; CC   with a target sequence and contain at least one phosphoro(di)thioate
; CC   link, having endonuclease activity. (A), and more generally any
; CC   catalytic nucleic acid (A') that modulates expression of the oestrogen
; CC   receptor gene, are used to treat cancer (particularly of breast or
; CC   endometrium), in vivo or by transforming cells ex vivo and implanting
; CC   treated cells, or for other conditions associated with levels of
; CC   oestrogen receptor. Because of the high selectivity for targeted RNA, (A)
; CC   can also be used to correlate inhibition of gene expression with
; CC   alterations in phenotype, particularly for identification of therapeutic
; CC   targets, and as research reagents (for RNA, in the  same way that
; CC   restriction endonucleases are used with DNA). The combination of
; CC   modifications in (A) improves resistance to nucleases, binding affinity
; CC   and/or activity. AAA23503 to AAA24747 represent oestrogen receptor
; CC   hammerhead ribozyme sequences, and AAA24748 to AAA25992 represent their
; CC   corresponding target sequences. AAA25993 to AAA26105 represent oestrogen
; CC   receptor hairpin ribozyme sequences, and AAA26107 to AAA26218 represent
; CC   their corresponding target sequences. AAA26219 to AAA26271 represent
; CC   other ribozyme sequences and antisense oligonucleotides used in the
; CC   exemplification of the present invention.
; XX
; SQ   Sequence 17 BP; 2 A; 3 C; 2 G; 10 T; 0 other;
;
;  AAA25846  Length: 17  October 16, 2003 08:46  Type: N  Check: 1912  ..
aaa25846

  Query Match             0.3%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2710 AAATGAGTAAAAACTAG 2726
              ||||| ||;|||; ||
Db         17 AAATGACTAAAAACGAG 1


RESULT 243
aaa25876
;  TOIG of: aaa25876  check: 1502  from: 1  to: 17
;
; ID   AAA25876 standard; DNA; 17 BP.
; XX
; AC   AAA25876;
; XX
; DT   19-JUL-2000  (first entry)
; XX
; DE   Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:2374.
```

```
; XX
; KW   Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
; KW   hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
; KW   gene expression modification; cancer; phosphorothioate; endonuclease;
; KW   anticancer; breast cancer; endometrium cancer; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO9954459-A2.
; XX
; PD   28-OCT-1999.
; XX
; PF   19-APR-1999;   99WO-US08547.
; XX
; PR   20-APR-1998;   98US-0082404.
; PR   23-JUN-1998;   98US-0103636.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC.
; XX
; PI   Thompson JD, Beigelman L, McSwiggen JA, Karpeisky A, Bellon L;
; PI   Reynolds M, Zwick M, Jarvis T, Woolf T, Haeberli P;
; PI   Matulic-Adamic J;
; XX
; DR   WPI; 2000-013248/01.
; XX
; PT   New nucleic acids that interact, and optionally cleave, target
; PT   sequences, used to treat cancer -
; XX
; PS   Claim 77; Page 93; 148pp; English.
; XX
; CC   The present invention describes nucleic acids (A) that interact stably
; CC   with a target sequence and contain at least one phosphoro(di)thioate
; CC   link, having endonuclease activity. (A), and more generally any
; CC   catalytic nucleic acid (A') that modulates expression of the oestrogen
; CC   receptor gene, are used to treat cancer (particularly of breast or
; CC   endometrium), in vivo or by transforming cells ex vivo and implanting
; CC   treated cells, or for other conditions associated with levels of
; CC   oestrogen receptor. Because of the high selectivity for targeted RNA, (A)
; CC   can also be used to correlate inhibition of gene expression with
; CC   alterations in phenotype, particularly for identification of therapeutic
; CC   targets, and as research reagents (for RNA, in the same way that
; CC   restriction endonucleases are used with DNA). The combination of
; CC   modifications in (A) improves resistance to nucleases, binding affinity
; CC   and/or activity. AAA23503 to AAA24747 represent oestrogen receptor
; CC   hammerhead ribozyme sequences, and AAA24748 to AAA25992 represent their
; CC   corresponding target sequences. AAA25993 to AAA26105 represent oestrogen
; CC   receptor hairpin ribozyme sequences, and AAA26107 to AAA26218 represent
; CC   their corresponding target sequences. AAA26219 to AAA26271 represent
; CC   other ribozyme sequences and antisense oligonucleotides used in the
; CC   exemplification of the present invention.
; XX
; SQ   Sequence 17 BP; 7 A; 2 C; 1 G; 7 T; 0 other;
;
;  AAA25876  Length: 17  October 16, 2003 08:46  Type: N  Check: 1502  ..
aaa25876

  Query Match              0.3%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       5123 GAATAATTTCTATTAAT 5139
              ||| |||||||||| ||
Db          1 GAAAAATTTCTATTCAT 17


RESULT 244
aaf02337/c
;  TOIG of: aaf02337  check: 976  from: 1  to: 17
;
; ID   AAF02337 standard; DNA; 17 BP.
; XX
; AC   AAF02337;
; XX
; DT   16-FEB-2001  (first entry)
; XX
; DE   Hammerhead ribozyme substrate #632.
; XX
; KW   Ribozyme; erythropoietin; granulocyte colony stimulating factor;
; KW   interferon alpha; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO200061729-A2.
; XX
; PD   19-OCT-2000.
; XX
; PF   11-APR-2000; 2000WO-US09721
; XX
; PR   12 APR-1999;   99US 0129300.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC.
; XX
; PI   Blatt L, Zwick M, Parks F, McSwiggen J;
; XX
; DR   WPI; 2000-647423/62.
; XX
; PT   Enzymatic and antisense nucleic acid inhibition of repressor genes,
; PT   useful for producing e.g. granulocyte colony stimulating factor
; PT   protein, interferon alpha and erythropoietin -
; XX
; PS   Claim 37; Page 70; 164pp; English.
; XX
; CC   The present invention relates to enzymatic and antisense nucleic acid
; CC   molecules that act as inhibitors of the expression of repressor genes
; CC   encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA
; CC   transcription factor gene, IRF 2 and/or the CAATT Displacement
; CC   Protein (CDP). Inhibition of the repressors removes prevents
; CC   inhibition (and consequently increases expression of) genes involved in
; CC   the production of erythropoietin, granulocyte colony stimulating factor
; CC   protein and interferon alpha.
; XX
; SQ   Sequence 17 BP; 5 A; 6 C; 1 G; 6 T; 0 other;
;
;  AAF02337  Length: 17  October 16, 2003 08:46  Type: N  Check: 976  ..
aaf02337

  Query Match              0.3%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       4749 CTGTTAAAATGGGGATA 4765
              || |||:  | ''|||'
Db         17 CTGTTAAATAGGGGATA 1


RESULT 245
aaf04402/c
;  TOIG of: aaf04402  check: 1442  from: 1  to: 17
;
; ID   AAF04402 standard; DNA; 17 BP.
; XX
; AC   AAF04402;
; XX
; DT   16-FEB-2001  (first entry)
; XX
; DE   Hammerhead ribozyme substrate #1918.
; XX
; KW   Ribozyme; erythropoietin; granulocyte colony stimulating factor;
; KW   interferon alpha; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO200061729-A2.
; XX
; PD   19-OCT-2000.
; XX
```

```
; PF   11-APR-2000; 2000WO-US09721.
; XX
; PR   12-APR-1999;   99US-0129390.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC.
; XX
; PI   Blatt L,  Zwick M,  Pavco P,  McSwiggen J;
; XX
; DR   WPI; 2000-647423/62.
; XX
; PT   Enzymatic and antisense nucleic acid inhibition of repressor genes,
; PT   useful for producing e.g. granulocyte colony stimulating factor
; PT   protein, interferon alpha and erythropoietin -
; XX
; PS   Claim 4; Page 99; 164pp; English.
; XX
; CC   The present invention relates to enzymatic and antisense nucleic acid
; CC   molecules that act as inhibitors of the expression of repressor genes
; CC   encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA
; CC   transcription factor gene, IRF-2 and/or the CAATT Displacement
; CC   Protein (CDP). Inhibition of the repressors removes prevents
; CC   inhibition (and consequently increases expression of) genes involved in
; CC   the production of erythropoietin, granulocyte colony stimulating factor
; CC   protein and interferon alpha.
; XX
; SQ   Sequence 17 BP; 3 A; 4 C; 2 G; 8 T; 0 other;
;
;  AAF04402  Length: 17  October 16, 2003 08:46  Type: N  Check: 1442  ..
aaf04402

  Query Match             0.3%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2205 ATTGGTAAAAACAGCAG 2221
                ||||  ||| ||||||||
Db         17 ATTGATAAGAACAGCAG 1


RESULT 246
aaf04598
;  TOIG of: aaf04598  check: 1612  from: 1  to: 17
;
; ID   AAF04598 standard; DNA; 17 BP.
; XX
; AC   AAF04598;
; XX
; DT   16-FEB-2001  (first entry)
; XX
; DE   Hammerhead ribozyme substrate #2114.
; XX
; KW   Ribozyme; erythropoietin; granulocyte colony stimulating factor;
; KW   interferon alpha; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO200061729-A2.
; XX
; PD   19-OCT-2000.
; XX
; PF   11-APR-2000; 2000WO-US09721.
; XX
; PR   12-APR-1999;   99US-0129390.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC.
; XX
; PI   Blatt L,  Zwick M,  Pavco P,  McSwiggen J;
; XX
; DR   WPI; 2000-647423/62.
; XX
; PT   Enzymatic and antisense nucleic acid inhibition of repressor genes,
; PT   useful for producing e.g. granulocyte colony stimulating factor
; PT   protein, interferon alpha and erythropoietin -
; XX
; PS   Claim 4; Page 104; 164pp; English.
; XX
; CC   The present invention relates to enzymatic and antisense nucleic acid
; CC   molecules that act as inhibitors of the expression of repressor genes
; CC   encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA
; CC   transcription factor gene, IRF-2 and/or the CAATT Displacement
; CC   Protein (CDP). Inhibition of the repressors removes prevents
; CC   inhibition (and consequently increases expression of) genes involved in
; CC   the production of erythropoietin, granulocyte colony stimulating factor
; CC   protein and interferon alpha.
; XX
; SQ   Sequence 17 BP; 3 A; 5 C; 1 G; 8 T; 0 other;
;
;  AAF04598  Length: 17  October 16, 2003 08:46  Type: N  Check: 1612  ..
aaf04598

  Query Match             0.3%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1766 TCCCCTGTTGATTATCT 1782
                || ||| ||||||| ||
Db          1 TCACCTCTTGATTATCT 17


RESULT 247
aaf04850/c
;  TOIG of: aaf04850  check: 1442  from: 1  to: 17
;
; ID   AAF04850 standard; DNA; 17 BP.
; XX
; AC   AAF04850;
; XX
; DT   16-FEB-2001  (first entry)
; XX
; DE   Hammerhead ribozyme substrate #2366.
; XX
; KW   Ribozyme; erythropoietin; granulocyte colony stimulating factor;
; KW   interferon alpha; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO200061729-A2.
; XX
; PD   19-OCT-2000.
; XX
; PF   11-APR-2000; 2000WO-US09721.
; XX
; PR   12-APR-1999;   99US-0129390.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC.
; XX
; PI   Blatt L,  Zwick M,  Pavco P,  McSwiggen J;
; XX
; DR   WPI; 2000-647423/62
; XX
; PT   Enzymatic and antisense nucleic acid inhibition of repressor genes,
; PT   useful for producing e.g. granulocyte colony stimulating factor
; PT   protein, interferon alpha and erythropoietin -
; XX
; PS   Claim 4; Page 109; 164pp; English.
; XX
; CC   The present invention relates to enzymatic and antisense nucleic acid
; CC   molecules that act as inhibitors of the expression of repressor genes
; CC   encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA
; CC   transcription factor gene, IRF-2 and/or the CAATT Displacement
; CC   Protein (CDP). Inhibition of the repressors removes prevents
; CC   inhibition (and consequently increases expression of) genes involved in
; CC   the production of erythropoietin, granulocyte colony stimulating factor
; CC   protein and interferon alpha.
; XX
; SQ   Sequence 17 BP; 3 A; 4 C; 2 G; 8 T; 0 other;
```

```
;
;  AAF04850  Length: 17  October 16, 2003 08:46  Type: N  Check: 1442  ..
aaf04850

  Query Match              0.3%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2205 ATTGGTAAAAACAGCAG 2221
              |||| ||| ||||||||
Db         17 ATTGATAAGAACAGCAG 1


RESULT 248
aaf05549
;  TOIG of: aaf05549  check: 857  from: 1  to: 17
;
; ID   AAF05549 standard; DNA; 17 BP.
; XX
; AC   AAF05549;
; XX
; DT   16-FEB-2001  (first entry)
; XX
; DE   Hammerhead ribozyme substrate #2768.
; XX
; KW   Ribozyme; erythropoietin; granulocyte colony stimulating factor;
; KW   interferon alpha; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO200061729-A2.
; XX
; PD   19-OCT-2000.
; XX
; PF   11-APR-2000; 2000WO-US09721.
; XX
; PR   12-APR-1999;   99US-0129390.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC.
; XX
; PI   Blatt L,  Zwick M,  Pavco P,  McSwiggen J;
; XX
; DR   WPI; 2000-647423/62.
; XX
; PT   Enzymatic and antisense nucleic acid inhibition of repressor genes,
; PT   useful for producing e.g. granulocyte colony stimulating factor
; PT   protein, interferon alpha and erythropoietin -
; XX
; PS   Claim 18; Page 119; 164pp; English.
; XX
; CC   The present invention relates to enzymatic and antisense nucleic acid
; CC   molecules that act as inhibitors of the expression of repressor genes
; CC   encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA
; CC   transcription factor gene, IRF-2 and/or the CAATT Displacement
; CC   Protein (CDP). Inhibition of the repressors removes prevents
; CC   inhibition (and consequently increases expression of) genes involved in
; CC   the production of erythropoietin, granulocyte colony stimulating factor
; CC   protein and interferon alpha.
; XX
; SQ   Sequence 17 BP; 9 A; 0 C; 3 G; 5 T; 0 other;
;
;  AAF05549  Length: 17  October 16, 2003 08:46  Type: N  Check: 857  ..
aaf05549

  Query Match              0.3%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       5187 AATAAAAGTGAAGTGAA 5203
              | ||||| |||||||||
Db          1 ATTAAAATTGAAGTGAA 17
```

```
RESULT 249
aaf06311
;  TOIG of: aaf06311  check: 2611  from: 1  to: 17
;
; ID   AAF06311 standard; DNA; 17 BP.
; XX
; AC   AAF06311;
; XX
; DT   16-FEB-2001  (first entry)
; XX
; DE   Hammerhead ribozyme substrate #3108.
; XX
; KW   Ribozyme; erythropoietin; granulocyte colony stimulating factor;
; KW   interferon alpha; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO200061729-A2.
; XX
; PD   19 OCT-2000.
; XX
; PF   11-APR 2000; 2000WO US09721.
; XX
; PR   12-APR-1999;   99US-0129390.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC.
; XX
; PI   Blatt L,  Zwick M,  Pavco P,  McSwiggen J;
; XX
; DR   WPI; 2000-647423/62.
; XX
; PT   Enzymatic and antisense nucleic acid inhibition of repressor genes,
; PT   useful for producing e.g. granulocyte colony stimulating factor
; PT   protein, interferon alpha and erythropoietin -
; XX
; PS   Claim 42; Page 127; 164pp; English.
; XX
; CC   The present invention relates to enzymatic and antisense nucleic acid
; CC   molecules that act as inhibitors of the expression of repressor genes
; CC   encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA
; CC   transcription factor gene, IRF-2 and/or the CAATT Displacement
; CC   Protein (CDP). Inhibition of the repressors removes prevents
; CC   inhibition (and consequently increases expression of) genes involved in
; CC   the production of erythropoietin, granulocyte colony stimulating factor
; CC   protein and interferon alpha.
; XX
; SQ   Sequence 17 BP; 3 A; 1 C; 1 G; 12 U; 0 other;
;
;  AAF06311  Length: 17  October 16, 2003 08:46  Type: N  Check: 2611  ..
aaf06311

  Query Match              0.3%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   17.6%;  Pred. No. 0;
  Matches    3;  Conservative   12;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       4498 AAGTTTTTTTTTTTTTT 4514
              ||| :::::: ::::::
Db          1 AAGCUUUUUUAUUUUUU 17


RESULT 250
aaf06315/c
;  TOIG of: aaf06315  check: 1697  from: 1  to: 17
;
; ID   AAF06315 standard; DNA; 17 BP.
; XX
; AC   AAF06315;
; XX
; DT   16-FEB-2001  (first entry)
; XX
; DE   Hammerhead ribozyme substrate #3112.
; XX
; KW   Ribozyme; erythropoietin; granulocyte colony stimulating factor;
```

; KW interferon alpha; ss.
; XX
; OS Homo sapiens.
; XX
; PN WO200061729-A2.
; XX
; PD 19-OCT-2000.
; XX
; PF 11-APR-2000; 2000WO-US09721.
; XX
; PR 12-APR-1999; 99US-0129390.
; XX
; PA (RIBO-) RIBOZYME PHARM INC.
; XX
; PI Blatt L, Zwick M, Pavco P, McSwiggen J;
; XX
; DR WPI; 2000-647423/62.
; XX
; PT Enzymatic and antisense nucleic acid inhibition of repressor genes,
; PT useful for producing e.g. granulocyte colony stimulating factor
; PT protein, interferon alpha and erythropoietin -
; XX
; PS Claim 42; Page 127; 164pp; English.
; XX
; CC The present invention relates to enzymatic and antisense nucleic acid
; CC molecules that act as inhibitors of the expression of repressor genes
; CC encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA
; CC transcription factor gene, IRF-2 and/or the CAATT Displacement
; CC Protein (CDP). Inhibition of the repressors removes prevents
; CC inhibition (and consequently increases expression of) genes involved in
; CC the production of erythropoietin, granulocyte colony stimulating factor
; CC protein and interferon alpha.
; XX
; SQ Sequence 17 BP; 4 A; 1 C; 0 G; 12 U; 0 other;
;
; AAF06315 Length: 17 October 16, 2003 08:46 Type: N Check: 1697 ..
aaf06315

Query Match 0.3%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 0;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 3963 TATATAAACAATAAAAA 3979
|| |||||| ||||||||
Db 17 TGTATAAAAAATAAAAA 1

RESULT 251
aah94753/c
; TOIG of: aah94753 check: 1155 from: 1 to: 17
;
; ID AAH94753 standard; RNA; 17 BP.
; XX
; AC AAH94753;
; XX
; DT 09-OCT-2001 (first entry)
; XX
; DE Human Chk1 ribozyme substrate SEQ ID NO: 178.
; XX
; KW Human; checkpoint kinase-1; Chk1; antisense; ribozyme; gene therapy;
; KW RNA cleavage; cancer; ss.
; XX
; OS Homo sapiens.
; XX
; PN WO200157206-A2.
; XX
; PD 09-AUG-2001.
; XX
; PF 02-FEB-2001; 2001WO-US03504.
; XX
; PR 03-FEB-2000; 2000US-0179983.
; XX
; PA (RIBO-) RIBOZYME PHARM INC.
; XX
; PA (FATT/) FATTAEY A R.
; XX
; PI Fattaey AR, Jarvis T, McSwiggen J, Booher RN, Holman PS;
; XX
; DR WPI; 2001-496922/54.
; XX
; PT Novel nucleic acid molecule e.g., ribozymes or antisense nucleic acid
; PT molecules, which downregulates expression of a checkpoint kinase-1
; PT gene, useful for treating colorectal, lung, breast or prostate cancers
; PT -
; XX
; PS Claim 4; Page 55; 115pp; English.
; XX
; CC The present invention provides nucleic acid molecules capable of
; CC downregulating the expression of the human checkpoint kinase-1 (Chk1)
; CC gene. These may be antisense or ribozyme sequences, and are useful in the
; CC treatment of diseases associated with conditions affected by Chk1 levels,
; CC including cancer. The present sequence is an oligonucleotide described in
; CC the exemplification of the invention.
; XX
; SQ Sequence 17 BP; 4 A; 7 C; 2 G; 4 U; 0 other;
;
; AAH94753 Length: 17 October 16, 2003 08:46 Type: N Check: 1155 ..
aah94753

Query Match 0.3%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 0;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 4075 CAATGTATGTGTGGCTG 4091
|||||||| | ||||
Db 17 CAATGTATGAGGGGCTG 1

RESULT 252
aah95067
; TOIG of: aah95067 check: 293 from: 1 to: 17
;
; ID AAH95067 standard; RNA; 17 BP.
; XX
; AC AAH95067;
; XX
; DT 09-OCT-2001 (first entry)
; XX
; DE Human Chk1 ribozyme substrate SEQ ID NO: 492.
; XX
; KW Human; checkpoint kinase-1; Chk1; antisense; ribozyme; gene therapy;
; KW RNA cleavage; cancer; ss.
; XX
; OS Homo sapiens.
; XX
; PN WO200157206-A2.
; XX
; PD 09-AUG-2001.
; XX
; PF 02-FEB-2001; 2001WO-US03504.
; XX
; PR 03-FEB-2000; 2000US-0179983.
; XX
; PA (RIBO-) RIBOZYME PHARM INC.
; PA (FATT/) FATTAEY A R.
; XX
; PI Fattaey AR, Jarvis T, McSwiggen J, Booher RN, Holman PS;
; XX
; DR WPI; 2001-496922/54.
; XX
; PT Novel nucleic acid molecule e.g., ribozymes or antisense nucleic acid
; PT molecules, which downregulates expression of a checkpoint kinase-1
; PT gene, useful for treating colorectal, lung, breast or prostate cancers
; PT -
; XX
; PS Claim 4; Page 62; 115pp; English.
; XX

; CC The present invention provides nucleic acid molecules capable of
; CC downregulating the expression of the human checkpoint kinase-1 (Chk1)
; CC gene. These may be antisense or ribozyme sequences, and are useful in the
; CC treatment of diseases associated with conditions affected by Chk1 levels,
; CC including cancer. The present sequence is an oligonucleotide described in
; CC the exemplification of the invention.
; XX
; SQ Sequence 17 BP; 9 A; 4 C; 1 G; 3 U; 0 other;
;
; AAH95067 Length: 17 October 16, 2003 08:46 Type: N Check: 293 ..
aah95067

Query Match 0.3%; Score 13.8; DB 1; Length 17;
Best Local Similarity 70.6%; Pred. No. 0;
Matches 12; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Qy 2336 TTCCAAACATCCAAAAA 2352
::||| |||:| |||||
Db 1 UUCCAGACAUCAAAAAA 17

RESULT 253
aah95627
; TOIG of: aah95627 check: 293 from: 1 to: 17
;
; ID AAH95627 standard; RNA; 17 BP.
; XX
; AC AAH95627;
; XX
; DT 09-OCT-2001 (first entry)
; XX
; DE Human Chk1 ribozyme substrate SEQ ID NO: 1052.
; XX
; KW Human; checkpoint kinase-1; Chk1; antisense; ribozyme; gene therapy;
; KW RNA cleavage; cancer; ss.
; XX
; OS Homo sapiens.
; XX
; PN WO200157206-A2.
; XX
; PD 09-AUG-2001.
; XX
; PF 02-FEB-2001; 2001WO-US03504.
; XX
; PR 03-FEB-2000; 2000US-0179983.
; XX
; PA (RIBO-) RIBOZYME PHARM INC.
; PA (FATT/) FATTAEY A R.
; XX
; PI Fattaey AR, Jarvis T, McSwiggen J, Booher RN, Holman PS;
; XX
; DR WPI; 2001-496922/54.
; XX
; PT Novel nucleic acid molecule e.g., ribozymes or antisense nucleic acid
; PT molecules, which downregulates expression of a checkpoint kinase-1
; PT gene, useful for treating colorectal, lung, breast or prostate cancers
; PT -
; XX
; PS Claim 4; Page 79; 115pp; English.
; XX
; CC The present invention provides nucleic acid molecules capable of
; CC downregulating the expression of the human checkpoint kinase-1 (Chk1)
; CC gene. These may be antisense or ribozyme sequences, and are useful in the
; CC treatment of diseases associated with conditions affected by Chk1 levels,
; CC including cancer. The present sequence is an oligonucleotide described in
; CC the exemplification of the invention.
; XX
; SQ Sequence 17 BP; 9 A; 4 C; 1 G; 3 U; 0 other;
;
; AAH95627 Length: 17 October 16, 2003 08:46 Type: N Check: 293 ..
aah95627

Query Match 0.3%; Score 13.8; DB 1; Length 17;
Best Local Similarity 70.6%; Pred. No. 0;
Matches 12; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Qy 2336 TTCCAAACATCCAAAAA 2352
::||| |||:| |||||
Db 1 UUCCAGACAUCAAAAAA 17

RESULT 254
aav48871
; TOIG of: aav48871 check: 308 from: 1 to: 17
;
; ID AAV48871 standard; DNA; 17 BP.
; XX
; AC AAV48871;
; XX
; DT 15-OCT-1998 (first entry)
; XX
; DE ErbB-2 gene antisense oligonucleotide ErbB-2-N-80.
; XX
; KW ErbB-2; antisense oligonucleotide; modulate; gene expression; ss.
; XX
; OS Synthetic.
; OS Homo sapiens.
; XX
; PN EP856579-A1.
; XX
; PD 05-AUG-1998.
; XX
; PF 31-JAN-1997; 97EP-0101531.
; XX
; PR 31-JAN-1997; 97EP-0101531.
; XX
; PA (BIOG-) BIOGNOSTIK GES BIOMOLEKULARE DIAGNOSTIK.
; XX
; PI Brysch W, Schlingensiepen K;
; XX
; DR WPI; 1998-400910/35.
; XX
; PT Preparation of antisense oligonucleotide(s) which lack long runs of
; PT consecutive guanosine or inosine , and have specific ratio of
; PT residues able to form two or three hydrogen bonds, have greater
; PT activity and reduced toxicity, used therapeutically or to modulate
; PT growth of cells in culture
; XX
; PS Example 4; Fig 6d; 286pp; English.
; XX
; CC AAV48709-886 represent antisense oligonucleotides directed against the
; CC ErbB-2 gene. Of these, only oligonucleotides AAV48709-91 resulted
; CC in significant reduction in ErbB-2 protein expression, while
; CC oligonucleotides AAV48792-886 had little effect. The oligonucleotides
; CC exemplify the invention. The specification describes oligonucleotides
; CC that contain 8-30 nucleotides, which contain at most 8 nucleotides that
; CC can each form three hydrogen bonds to cytosine; do not contain four
; CC consecutive nucleotides able to form three H-bonds each to four
; CC consecutive cytosines; do not contain two sequences of three consecutive
; CC nuclectides each able to form three H-bonds to three consecutive
; CC cytosines, and the ratio between residues able to form two H-bonds each
; CC (2R) or three such bonds (3R) is given by 2R/3R = 0.33-0.72. The
; CC oligonucleotides are used to modulate expression of genes, particularly
; CC the genes for p53, ErB-2, junB, junD, TGF-beta 1 or beta 2 to control
; CC proliferation of primary cell cultures (e.g. bone marrow stem, liver or
; CC kidney cells, osteoclasts, osteoblasts and/or keratinocytes). The
; CC oligonucleotides can also be used to analyse function of proteins (by
; CC altering their expression or activity) and therapeutically, e.g. in
; CC cases of cancer or (targeting TGF) for stimulating the immune system.
; XX
; SQ Sequence 17 BP; 10 A; 2 C; 1 G; 4 T; 0 other;
;
; AAV48871 Length: 17 October 16, 2003 08:46 Type: N Check: 308 ..
aav48871

Query Match 0.3%; Score 13.8; DB 1; Length 17;

```
  Best Local Similarity   88.2%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       3599 GTCTGGAAAAAAACAAA 3615
              |||| ||||||||||||
Db          1 GTCTTTAAAAAAACAAA 17


RESULT 255
aax63864
;  TOIG of: aax63864  check: 1425  from: 1  to: 17
;
; ID   AAX63864 standard; RNA; 17 BP.
; XX
; AC   AAX63864;
; XX
; DT   20-JUL-1999  (first entry)
; XX
; DE   Rabbit stromelysin hammerhead target SEQ ID NO:496.
; XX
; KW   Arthritic condition; graft tolerance; immune response; target; cleavage;
; KW   hammerhead ribozyme; hairpin ribozyme; human; rabbit; mouse; collagenase;
; KW   stromelysin; synovial membrane; joint; arthritis; osteoarthritis;
; KW   rheumatoid arthritis; autoimmune disease; allergy; inflammation;
; KW   diagnosis; ss.
; XX
; OS   Oryctolagus cuniculus.
; XX
; PN   WO9618736-A2.
; XX
; PD   20-JUN-1996.
; XX
; PF   22-NOV-1995;   95WO-US15516.
; XX
; PR   05-OCT-1995;   95US-0541365.
; PR   13-DEC-1994;   94US-0354920.
; PR   23-DEC-1994;   94US-0363253.
; PR   23-DEC-1994;   94US-0363254.
; PR   17-FEB-1995;   95US-0390850.
; PR   20-APR-1995;   95US-0426124.
; PR   02-MAY-1995;   95US-0432874.
; PR   04-MAY-1995;   95US-0434509.
; PR   07-JUL-1995;   95US-0000951.
; PR   07-JUL-1995;   95US-0000974.
; PR   07-AUG-1995;   95US-0512861.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC.
; XX
; PI   Draper K,  Gustofson J,  McSwiggen J,  Pavco P,  Stinchcomb DT;
; PI   Beigelman L,  Karpeisky A,  Modak A,  Usman N,  Burgin A;
; PI   Matulic-Adamic J,  Jarvis T,  Thompson JD,  Wincott F;
; XX
; DR   WPI; 1996-300653/30.
; XX
; PT   Enzymatic nucleic acid molecules having a hammer head motif - used
; PT   for the treatment of arthritis, induction of graft tolerance or
; PT   treatment of auto-immune diseases
; XX
; PS   Example 1; Page 154; 307pp; English.
; XX
; CC   The present invention describes a novel enzymatic nucleic acid (ENA)
; CC   having a hammerhead motif (HM) comprising: (i) at least 5 ribose
; CC   residues; (ii) a 2'-C-allyl modification at position 4 of the ENA; (iii)
; CC   at least ten 2'-O-methyl modifications; and (iv) a 3' end modification.
; CC   The ENA's can inhibit collagenase and stromelysin production in the
; CC   synovial membrane of joints for the treatment or prevention of arthritis,
; CC   particularly osteoarthritis or rheumatoid arthritis. The ENA's can also
; CC   be used to treat antigen presenting cells of a donor to induce tolerance
; CC   in a recipient to an alloantigen of a donor. They can also be used for
; CC   enhancing graft tolerance or for treating autoimmune disease, and for
; CC   treating allergies and other inflammatory conditions. The ENA's can also
; CC   be used in diagnosis. Ribozyme therapy impacts on the expression of
; CC   stromelysin without introducing the non-specific effects upon gene
; CC   expression which accompany treatment with retinoids and dexamethasone.
; CC   The concentration of ribozyme required to affect a therapeutic treatment
; CC   is lower than that required of antisense molecules, and is highly
; CC   specific. The present sequence is used in the exemplification of the
; CC   present invention.
; XX
; SQ   Sequence 17 BP; 2 A; 4 C; 4 G; 7 U; 0 other;
;
;  AAX63864  Length: 17  October 16, 2003 08:46  Type: N  Check: 1425  ..
aax63864

  Query Match             8.3%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   47.1%;  Pred. No. 0;
  Matches    8;  Conservative    7;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        899 TTGCTGCTGATGTGCTT 915
              ::||:.:: |:| ||::
Db          1 UUGCUGCUCAUGACCUU 17


RESULT 256
aba77485/c
;  TOIG of: aba77485  check: 886  from: 1  to: 17
;
; ID   ABA77485 standard; DNA; 17 BP.
; XX
; AC   ABA77485;
; XX
; DT   24-JAN-2002  (first entry)
; XX
; DE   p53 mutation correcting oligonucleotide SEQ ID NO: 331.
; XX
; KW   Human; gene therapy; adenosine deaminase deficiency; p53; beta-globin;
; KW   retinoblastoma; BRCA1; BRCA2; CFTR; cystic fibrosis; cancer; Factor V;
; KW   cyclin-dependent kinase inhibitor 2A; CDKN2A; melanoma; APC; HBA1; HBA2;
; KW   adenomatous polyposis of the colon; Factor VII; Factor IX; thrombosis;
; KW   haemophilia; alpha thalassaemia; haemoglobin alpha locus 1; MLH1; APOE;
; KW   mismatch repair; MSH2; MSH6; hyperlipidaemia; apolipoprotein E; LDLR;
; KW   familial hypercholesterolaemia; UGT1; syndrome; APP; PSEN1; antisense;
; KW   UDP-glucuronosyltransferase; amyloid precursor protein; presenilin-1;
; KW   Alzheimer's disease; cytostatic; antisickling; antianaemic; haemostatic;
; KW   antilipemic; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO200173002-A2.
; XX
; PD   04-OCT-2001.
; XX
; PF   27-MAR-2001; 2001WO-US09761.
; XX
; PR   27-MAR-2000; 2000US-192176P.
; PR   27-MAR-2000; 2000US-192179P.
; PR   01-JUN-2000; 2000US-208538P.
; PR   30-OCT-2000; 2000US-2449890P.
; XX
; PA   (UYDE ) UNIV DELAWARE.
; XX
; PI   Kmiec EB,  Gamper HB,  Rice MC;
; XX
; DR   WPI; 2001-639230/73.
; XX
; PT   Oligonucleotide for targeted alterations of genetic sequences and for
; PT   treating cystic fibrosis, comprises at least one mismatch and chemical
; PT   modification -
; XX
; PS   Claim 7; Page 62; 294pp; English.
; XX
; CC   The present invention provides single-stranded oligonucleotides which can
; CC   be used for the targeted alteration of genomic sequences, where the
; CC   oligonucleotide has at least one mismatch compared with the genomic
; CC   sequence to be altered. In particular, these sequences are directed at
; CC   the following genes: adenosine deaminase, p53, beta-globin,
```

; CC retinoblastoma, BRCA1, BRCA2, CFTR, cyclin-dependent kinase inhibitor 2A
; CC (CDKN2A), APC, Factor V, Factor VIII, Factor IX, haemoglobin alpha locus
; CC 1 (HBA1), haemoglobin alpha locus 2 (HBA2), MLH1, MSH2, MSH6,
; CC apolipoprotein E (APOE), LDL receptor (LDLR), UDP-glucuronosyltransferase
; CC (UGT1), amyloid precursor protein (APC), presenilin-1 (PSEN1) and
; CC presenilin-2 (PSEN2). These can be used in the gene therapy of diseases
; CC such as cancer, adenosine deaminase deficiency, cystic fibrosis,
; CC haemophilia, hypercholesterolaemia, thalassaemia, sickle cell anaemia,
; CC Alzheimer's disease, melanoma, adenomatous polyposis of the colon and
; CC various syndromes. The present sequence is one of the gene correcting
; CC oligonucleotides of the invention.
; XX
; SQ Sequence 17 BP; 2 A; 4 C; 7 G; 4 T; 0 other;
;
; ABA77485 Length: 17 October 16, 2003 08:46 Type: N Check: 886 ..
aba77485

Query Match 0.3%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 0;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2930 CTTTCCCTGGACAGGCA 2946
|| |||| |||||||||
Db 17 CTCTCCCAGGACAGGCA 1

RESULT 257
aba77486
; TOIG of: aba77486 check: 447 from: 1 to: 17
;
; ID ABA77486 standard; DNA; 17 BP.
; XX
; AC ABA77486;
; XX
; DT 24-JAN-2002 (first entry)
; XX
; DE p53 mutation correcting oligonucleotide SEQ ID NO: 332.
; XX
; KW Human; gene therapy; adenosine deaminase deficiency; p53; beta-globin;
; KW retinoblastoma; BRCA1; BRCA2; CFTR; cystic fibrosis; cancer; Factor V;
; KW cyclin-dependent kinase inhibitor 2A; CDKN2A; melanoma; APC; HBA1; HBA2;
; KW adenomatous polyposis of the colon; Factor VII; Factor IX; thrombosis;
; KW haemophilia; alpha thalassaemia; haemoglobin alpha locus 1; MLH1; APOE;
; KW mismatch repair; MSH2; MSH6; hyperlipidaemia; apolipoprotein E; LDLR;
; KW familial hypercholesterolaemia; UGT1; syndrome; APP; PSEN1; antisense;
; KW UDP-glucuronosyltransferase; amyloid precursor protein; presenilin-1;
; KW Alzheimer's disease; cytostatic; antisickling; antianaemic; haemostatic;
; KW antilipemic; ss.
; XX
; OS Homo sapiens.
; XX
; PN WO200173002-A2.
; XX
; PD 04-OCT-2001.
; XX
; PF 27-MAR-2001; 2001WO-US09761.
; XX
; PR 27-MAR-2000; 2000US-192176P.
; PR 27-MAR-2000; 2000US-192179P.
; PR 01-JUN-2000; 2000US-208538P.
; PR 30-OCT-2000; 2000US-244989P.
; XX
; PA (UYDE) UNIV DELAWARE.
; XX
; PI Kmiec EB, Gamper HB, Rice MC;
; XX
; DR WPI; 2001-639230/73.
; XX
; PT Oligonucleotide for targeted alterations of genetic sequences and for
; PT treating cystic fibrosis, comprises at least one mismatch and chemical
; PT modification -
; XX
; PS Claim 7; Page 62; 294pp; English.

; XX
; CC The present invention provides single-stranded oligonucleotides which can
; CC be used for the targeted alteration of genomic sequences, where the
; CC oligonucleotide has at least one mismatch compared with the genomic
; CC sequence to be altered. In particular, these sequences are directed at
; CC the following genes: adenosine deaminase, p53, beta-globin,
; CC retinoblastoma, BRCA1, BRCA2, CFTR, cyclin-dependent kinase inhibitor 2A
; CC (CDKN2A), APC, Factor V, Factor VIII, Factor IX, haemoglobin alpha locus
; CC 1 (HBA1), haemoglobin alpha locus 2 (HBA2), MLH1, MSH2, MSH6,
; CC apolipoprotein E (APOE), LDL receptor (LDLR), UDP-glucuronosyltransferase
; CC (UGT1), amyloid precursor protein (APC), presenilin-1 (PSEN1) and
; CC presenilin-2 (PSEN2). These can be used in the gene therapy of diseases
; CC such as cancer, adenosine deaminase deficiency, cystic fibrosis,
; CC haemophilia, hypercholesterolaemia, thalassaemia, sickle cell anaemia,
; CC Alzheimer's disease, melanoma, adenomatous polyposis of the colon and
; CC various syndromes. The present sequence is one of the gene correcting
; CC oligonucleotides of the invention.
; XX
; SQ Sequence 17 BP; 4 A; 7 C; 4 G; 2 T; 0 other;
;
; ABA77486 Length: 17 October 16, 2003 08:46 Type: N Check: 447 ..
aba77486

Query Match 0.3%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 0;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2930 CTTTCCCTGGACAGGCA 2946
|| ||| .|||:||||
Db 1 CTCTCCCAGGACAGGCA 17

RESULT 258
abk00060
; TOIG of: abk00060 check: 1107 from: 1 to: 17
;
; ID ABK00060 standard; RNA; 17 BP.
; XX
; AC ABK00060;
; XX
; DT 12-MAR-2002 (first entry)
; XX
; DE Human NOGO Hammerhead Ribozyme #60.
; XX
; KW Human; ss; antisense therapy; cytostatic; antiinflammatory; haemostatic;
; KW cerebroprotective; nootropic; neuroprotective; antiparkinsonian;
; KW muscular; CD20; neurite growth inhibitor gene; NOGO; hammerhead ribozyme;
; KW DNAzyme; inozyme; G-cleaver; amberzyme; zinzyme; lymphoma; leukaemia;
; KW B-cell lymphoma; non-Hodgkin's lymphoma; NHL; lymphocytic leukaemia;
; KW human immunodeficiency virus; HIV associated NHL; mantle-cell lymphoma;
; KW MCL; immunocytoma; IMC; immune thrombocytopaenia; stroke; dementia;
; KW inflammatory arthropathy; central nervous system injury;
; KW cerebrovascular accident; CVA; Alzheimer's disease; multiple sclerosis;
; KW chemotherapy-induced neuropathy; amyotrophic lateral sclerosis; ALS;
; KW Parkinson's disease; ataxia; Huntington's disease;
; KW Creutzfeldt-Jakob disease; muscular dystrophy; neurodegenerative disease.
; XX
; OS Homo sapiens.
; OS Synthetic.
; XX
; PN WO200159103-A2.
; XX
; PD 16-AUG-2001.
; XX
; PF 09-FEB-2001; 2001WO US04273.
; XX
; PR 11-FEB-2000; 2000US-181797P.
; PR 28-FEB-2000; 2000US-185516P.
; PR 06-MAR-2000; 2000US-187128P.
; XX
; PA (RIBO-) RIBOZYME PHARM INC.
; PA (BLAT/) BLATT L.
; PA (MCSW/) MCSWIGGEN J.

; PA (CHOW/) CHOWRIRA B M.
; XX
; PI Blatt L, McSwiggen J, Chowrira BM;
; XX
; DR WPI; 2001-607195/69.
; XX
; PT Nucleic acid molecules, e.g., enzymatic nucleic acids and antisense
; PT constructs, which down regulate expression of a CD20 gene or neurite
; PT growth inhibitor gene useful for treating, e.g., lymphoma, leukemia,
; PT and central nervous system injury -
; XX
; PS Claim 88; Page 66; 200pp; English.
; XX
; CC The invention relates to a nucleic acid molecule which down regulates
; CC expression of a CD20 gene and a nucleic acid molecule which down
; CC regulates expression of a neurite growth inhibitor gene (NOGO).
; CC The nucleic acids may be enzymatic nucleic acids (e.g. a ribozyme or a
; CC DNAzyme) an Inozyme (an endolytic nucleic acid cleaving a an RNA molecule
; CC possessing an NCH motif), a G-cleaver (cleaving RNA with a NYN
; CC motif) pr an amberzyme (cleaving RNA with an NGN triplet), a zinzyme
; CC (cleaving RNA with a YGY motif). The CD20-targetting nucleic acid is used
; CC to cleave RNA of CD20 in the presence of a divalent cation that is
; CC preferably Mg^2^+. Furthermore, it may be contacted with a cell to reduce
; CC CD20 activity of the cell and treat a patient having a condition
; CC associated with the level of CD20. The treatment may further comprise the
; CC use of one or more therapies. In particular, the CD20 targetting
; CC nucleic acid may be used to treat lymphoma, leukaemia, B-cell
; CC lymphoma, low-grade or follicular non-Hodgkin's lymphoma (NHL), bulky
; CC low-grade or follicular NHL, lymphocytic leukaemia, HIV (human
; CC immunodeficiency virus) associated NHL, mantle-cell lymphoma (MCL),
; CC immunocytoma (IMC), small B-cell lymphocytic lymphoma, immune
; CC thrombocytopaenia, and inflammatory arthropathy. The NOGO-targetting
; CC nucleic acid is used to cleave RNA of the NOGO gene in the presence of a
; CC divalent cation that is preferably Mg^2^+. Furthermore, the nucleic acid
; CC may be contacted with a cell to reduce NOGO activity of the cell and
; CC treat a patient having a condition associated with the level of NOGO. The
; CC treatment may further comprise the use of one or more therapies.
; CC In particular, the NOGO-targetting nucleic acid may be used to treat
; CC central nervous system (CNS) injury and cerebrovascular accident (CVA,
; CC stroke), Alzheimer's disease, dementia, multiple sclerosis (MS),
; CC chemotherapy-induced neuropathy, amyotrophic lateral sclerosis (ALS),
; CC Parkinson's disease, ataxia, Huntington's disease, Creutzfeldt-Jakob
; CC disease, muscular dystrophy, and/or other neurodegenerative disease
; CC states which respond to the modulation of NOGO expression. The
; CC present sequence is a hammerhead ribozyme of the invention.
; XX
; SQ Sequence 17 BP; 2 A; 5 C; 5 G; 5 U; 0 other;
;
; ABK00060 Length: 17 October 16, 2003 08:46 Type: N Check: 1107 ..
abk00060

Query Match 0.3%; Score 13.8; DB 1; Length 17;
Best Local Similarity 58.8%; Pred. No. 0;
Matches 10; Conservative 5; Mismatches 2; Indels 0; Gaps 0;

```
Qy       4276 TGTTGCATATGAGCCTG 4292
              :| :|||: :|||||:|
Db          1 UGCUGCAUCUGAGCCUG 17
```

RESULT 259
abk00237/c
; TOIG of: abk00237 check: 243 from: 1 to: 17
;
; ID ABK00237 standard; RNA; 17 BP.
; XX
; AC ABK00237;
; XX
; DT 12-MAR-2002 (first entry)
; XX
; DE Human NOGO Hammerhead Ribozyme #237.
; XX
; KW Human; ss; antisense therapy; cytostatic; antiinflammatory; haemostatic;
; KW cerebroprotective; nootropic; neuroprotective; antiparkinsonian;
; KW muscular; CD20; neurite growth inhibitor gene; NOGO; hammerhead ribozyme;
; KW DNAzyme; inozyme; G-cleaver; amberzyme; zinzyme; lymphoma; leukaemia;
; KW B-cell lymphoma; non-Hodgkin's lymphoma; NHL; lymphocytic leukaemia;
; KW human immunodeficiency virus; HIV associated NHL; mantle-cell lymphoma;
; KW MCL; immunocytoma; IMC; immune thrombocytopaenia; stroke; dementia;
; KW inflammatory arthropathy; central nervous system injury;
; KW cerebrovascular accident; CVA; Alzheimer's disease; multiple sclerosis;
; KW chemotherapy-induced neuropathy; amyotrophic lateral sclerosis; ALS;
; KW Parkinson's disease; ataxia; Huntington's disease;
; KW Creutzfeldt-Jakob disease; muscular dystrophy; neurodegenerative disease.
; XX
; OS Homo sapiens.
; OS Synthetic.
; XX
; PN WO200159103-A2.
; XX
; PD 16-AUG-2001.
; XX
; PF 09-FEB-2001; 2001WO-US04273.
; XX
; PR 11-FEB-2000; 2000US-181797P.
; PR 28-FEB-2000; 2000US-185516P.
; PR 06-MAR-2000; 2000US-187128P.
; XX
; PA (RIBO-) RIBOZYME PHARM INC.
; PA (BLAT/) BLATT L.
; PA (MCSW/) MCSWIGGEN J.
; PA (CHOW/) CHOWRIRA B M.
; XX
; PI Blatt L, McSwiggen J, Chowrira BM;
; XX
; DR WPI; 2001-607195/69.
; XX
; PT Nucleic acid molecules, e.g., enzymatic nucleic acids and antisense
; PT constructs, which down regulate expression of a CD20 gene or neurite
; PT growth inhibitor gene useful for treating, e.g., lymphoma, leukemia,
; PT and central nervous system injury -
; XX
; PS Claim 88; Page 69; 200pp; English.
; XX
; CC The invention relates to a nucleic acid molecule which down regulates
; CC expression of a CD20 gene and a nucleic acid molecule which down
; CC regulates expression of a neurite growth inhibitor gene (NOGO).
; CC The nucleic acids may be enzymatic nucleic acids (e.g. a ribozyme or a
; CC DNAzyme) an Inozyme (an endolytic nucleic acid cleaving a an RNA molecule
; CC possessing an NCH motif), a G-cleaver (cleaving RNA with a NYN
; CC motif) pr an amberzyme (cleaving RNA with an NGN triplet), a zinzyme
; CC (cleaving RNA with a YGY motif). The CD20-targetting nucleic acid is used
; CC to cleave RNA of CD20 in the presence of a divalent cation that is
; CC preferably Mg^2^+. Furthermore, it may be contacted with a cell to reduce
; CC CD20 activity of the cell and treat a patient having a condition
; CC associated with the level of CD20. The treatment may further comprise the
; CC use of one or more therapies. In particular, the CD20 targetting
; CC nucleic acid may be used to treat lymphoma, leukaemia, B-cell
; CC lymphoma, low-grade or follicular non-Hodgkin's lymphoma (NHL), bulky
; CC low-grade or follicular NHL, lymphocytic leukaemia, HIV (human
; CC immunodeficiency virus) associated NHL, mantle-cell lymphoma (MCL),
; CC immunocytoma (IMC), small B-cell lymphocytic lymphoma, immune
; CC thrombocytopaenia, and inflammatory arthropathy. The NOGO-targetting
; CC nucleic acid is used to cleave RNA of the NOGO gene in the presence of a
; CC divalent cation that is preferably Mg^2^+. Furthermore, the nucleic acid
; CC may be contacted with a cell to reduce NOGO activity of the cell and
; CC treat a patient having a condition associated with the level of NOGO. The
; CC treatment may further comprise the use of one or more therapies.
; CC In particular, the NOGO-targetting nucleic acid may be used to treat
; CC central nervous system (CNS) injury and cerebrovascular accident (CVA,
; CC stroke), Alzheimer's disease, dementia, multiple sclerosis (MS),
; CC chemotherapy-induced neuropathy, amyotrophic lateral sclerosis (ALS),
; CC Parkinson's disease, ataxia, Huntington's disease, Creutzfeldt-Jakob
; CC disease, muscular dystrophy, and/or other neurodegenerative disease
; CC states which respond to the modulation of NOGO expression. The
; CC present sequence is a hammerhead ribozyme of the invention.

```
; XX
; SQ   Sequence 17 BP; 14 A; 0 C; 2 G; 1 U; 0 other;
;
;  ABK00237  Length: 17  October 16, 2003 08:46  Type: N  Check: 243  ..
abk00237

  Query Match              0.3%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2124 TTTTCTTTTCTTTTTTT 2140
              ||||||| | |||||||
Db         17 TTTTCTTCTATTTTTTT 1


RESULT 260
abk00772/c
;  TOIG of: abk00772  check: 691  from: 1  to: 17
;
; ID   ABK00772 standard; RNA; 17 BP.
; XX
; AC   ABK00772;
; XX
; DT   12-MAR-2002  (first entry)
; XX
; DE   Human NOGO Inozyme #42.
; XX
; KW   Human; ss; antisense therapy; cytostatic; antiinflammatory; haemostatic;
; KW   cerebroprotective; nootropic; neuroprotective; antiparkinsonian;
; KW   muscular; CD20; neurite growth inhibitor gene; NOGO; hammerhead ribozyme;
; KW   DNAzyme; inozyme; G-cleaver; amberzyme; zinzyme; lymphoma; leukaemia;
; KW   B-cell lymphoma; non-Hodgkin's lymphoma; NHL; lymphocytic leukaemia;
; KW   human immunodeficiency virus; HIV associated NHL; mantle-cell lymphoma;
; KW   MCL; immunocytoma; IMC; immune thrombocytopaenia; stroke; dementia;
; KW   inflammatory arthropathy; central nervous system injury;
; KW   cerebrovascular accident; CVA; Alzheimer's disease; multiple sclerosis;
; KW   chemotherapy-induced neuropathy; amyotrophic lateral sclerosis; ALS;
; KW   Parkinson's disease; ataxia; Huntington's disease;
; KW   Creutzfeldt-Jakob disease; muscular dystrophy; neurodegenerative disease.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; PN   WO200159103-A2.
; XX
; PD   16-AUG-2001.
; XX
; PF   09-FEB-2001; 2001WO-US04273.
; XX
; PR   11-FEB-2000; 2000US-181797P.
; PR   28-FEB-2000; 2000US-185516P.
; PR   06-MAR-2000; 2000US-187128P.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC.
; PA   (BLAT/) BLATT L.
; PA   (MCSW/) MCSWIGGEN J.
; PA   (CHOW/) CHOWRIRA B M.
; XX
; PI   Blatt L,  McSwiggen J,  Chowrira BM;
; XX
; DR   WPI; 2001-607195/69.
; XX
; PT   Nucleic acid molecules, e.g., enzymatic nucleic acids and antisense
; PT   constructs, which down regulate expression of a CD20 gene or neurite
; PT   growth inhibitor gene useful for treating, e.g., lymphoma, leukemia,
; PT   and central nervous system injury  -
; XX
; PS   Claim 88; Page 78; 200pp; English.
; XX
; CC   The invention relates to a nucleic acid molecule which down regulates
; CC   expression of a CD20 gene and a nucleic acid molecule which down
; CC   regulates expression of a neurite growth inhibitor gene (NOGO).
; CC   The nucleic acids may be enzymatic nucleic acids (e.g. a ribozyme or a
; CC   DNAzyme) an Inozyme (an endolytic nucleic acid cleaving a an RNA molecule
; CC   possessing an NCH motif), a G-cleaver (cleaving RNA with a NYN
; CC   motif) pr an amberzyme (cleaving RNA with an NGN triplet), a zinzyme
; CC   (cleaving RNA with a YGY motif). The CD20-targetting nucleic acid is used
; CC   to cleave RNA of CD20 in the presence of a divalent cation that is
; CC   preferably Mg^2^+. Furthermore, it may be contacted with a cell to reduce
; CC   CD20 activity of the cell and treat a patient having a condition
; CC   associated with the level of CD20. The treatment may further comprise the
; CC   use of one or more therapies. In particular, the CD20 targetting
; CC   nucleic acid may be used to treat lymphoma, leukaemia, B-cell
; CC   lymphoma, low-grade or follicular non-Hodgkin's lymphoma (NHL), bulky
; CC   low-grade or follicular NHL, lymphocytic leukaemia, HIV (human
; CC   immunodeficiency virus) associated NHL, mantle-cell lymphoma (MCL),
; CC   immunocytoma (IMC), small B-cell lymphocytic lymphoma, immune
; CC   thrombocytopaenia, and inflammatory arthropathy. The NOGO-targetting
; CC   nucleic acid is used to cleave RNA of the NOGO gene in the presence of a
; CC   divalent cation that is preferably Mg^2^+. Furthermore, the nucleic acid
; CC   may be contacted with a cell to reduce NOGO activity of the cell and
; CC   treat a patient having a condition associated with the level of NOGO. The
; CC   treatment may further comprise the use of one or more therapies.
; CC   In particular, the NOGO-targetting nucleic acid may be used to treat
; CC   central nervous system (CNS) injury and cerebrovascular accident (CVA,
; CC   stroke), Alzheimer's disease, dementia, multiple sclerosis (MS),
; CC   chemotherapy-induced neuropathy, amyotrophic lateral sclerosis (ALS),
; CC   Parkinson's disease, ataxia, Huntington's disease, Creutzfeldt-Jakob
; CC   disease, muscular dystrophy, and/or other neurodegenerative disease
; CC   states which respond to the modulation of NOGO expression. The
; CC   present sequence is an inozyme of the invention.
; XX
; SQ   Sequence 17 BP; 4 A; 9 C; 0 G; 4 U; 0 other;
;
;  ABK00772  Length: 17  October 16, 2003 08:46  Type: N  Check: 691  ..
abk00772

  Query Match              0.3%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       4462 TGGAGGGTGGAAATAAT 4478
              |||;||||;|| || ||
Db         17 TGGAGGGTGGAGATGAT 1


RESULT 261
abk02556/c
;  TOIG of: abk02556  check: 327  from: 1  to: 17
;
; ID   ABK02556 standard; RNA; 17 BP.
; XX
; AC   ABK02556;
; XX
; DT   12-MAR-2002  (first entry)
; XX
; DE   Human NOGO Amberzyme #228.
; XX
; KW   Human; ss; antisense therapy; cytostatic; antiinflammatory; haemostatic;
; KW   cerebroprotective; nootropic; neuroprotective; antiparkinsonian;
; KW   muscular; CD20; neurite growth inhibitor gene; NOGO; hammerhead ribozyme;
; KW   DNAzyme; inozyme; G-cleaver; amberzyme; zinzyme; lymphoma; leukaemia;
; KW   B-cell lymphoma; non-Hodgkin's lymphoma; NHL; lymphocytic leukaemia;
; KW   human immunodeficiency virus; HIV associated NHL; mantle-cell lymphoma;
; KW   MCL; immunocytoma; IMC; immune thrombocytopaenia; stroke; dementia;
; KW   inflammatory arthropathy; central nervous system injury;
; KW   cerebrovascular accident; CVA; Alzheimer's disease; multiple sclerosis;
; KW   chemotherapy-induced neuropathy; amyotrophic lateral sclerosis; ALS;
; KW   Parkinson's disease; ataxia; Huntington's disease;
; KW   Creutzfeldt-Jakob disease; muscular dystrophy; neurodegenerative disease.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; PN   WO200159103-A2.
; XX
```

```
; PD   16-AUG-2001.
; XX
; PF   09-FEB-2001; 2001WO-US04273.
; XX
; PR   11-FEB-2000; 2000US-181797P.
; PR   28-FEB-2000; 2000US-185516P.
; PR   06-MAR-2000; 2000US-187128P.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC.
; PA   (BLAT/) BLATT L.
; PA   (MCSW/) MCSWIGGEN J.
; PA   (CHOW/) CHOWRIRA B M.
; XX
; PI   Blatt L, McSwiggen J, Chowrira BM;
; XX
; DR   WPI; 2001-607195/69.
; XX
; PT   Nucleic acid molecules, e.g., enzymatic nucleic acids and antisense
; PT   constructs, which down regulate expression of a CD20 gene or neurite
; PT   growth inhibitor gene useful for treating, e.g., lymphoma, leukemia,
; PT   and central nervous system injury -
; XX
; PS   Claim 88; Page 135; 200pp; English.
; XX
; CC   The invention relates to a nucleic acid molecule which down regulates
; CC   expression of a CD20 gene and a nucleic acid molecule which down
; CC   regulates expression of a neurite growth inhibitor gene (NOGO).
; CC   The nucleic acids may be enzymatic nucleic acids (e.g. a ribozyme or a
; CC   DNAzyme) an Inozyme (an endolytic nucleic acid cleaving a an RNA molecule
; CC   possessing an NCH motif), a G-cleaver (cleaving RNA with a NYN
; CC   motif) pr an amberzyme (cleaving RNA with an NGN triplet), a zinzyme
; CC   (cleaving RNA with a YGY motif). The CD20-targetting nucleic acid is used
; CC   to cleave RNA of CD20 in the presence of a divalent cation that is
; CC   preferably Mg^2^+. Furthermore, it may be contacted with a cell to reduce
; CC   CD20 activity of the cell and treat a patient having a condition
; CC   associated with the level of CD20. The treatment may further comprise the
; CC   use of one or more therapies. In particular, the CD20 targetting
; CC   nucleic acid may be used to treat lymphoma, leukaemia, B-cell
; CC   lymphoma, low-grade or follicular non-Hodgkin's lymphoma (NHL), bulky
; CC   low-grade or follicular NHL, lymphocytic leukaemia, HIV (human
; CC   immunodeficiency virus) associated NHL, mantle-cell lymphoma (MCL),
; CC   immunocytoma (IMC), small B-cell lymphocytic lymphoma, immune
; CC   thrombocytopaenia, and inflammatory arthropathy. The NOGO-targetting
; CC   nucleic acid is used to cleave RNA of the NOGO gene in the presence of a
; CC   divalent cation that is preferably Mg^2^+. Furthermore, the nucleic acid
; CC   may be contacted with a cell to reduce NOGO activity of the cell and
; CC   treat a patient having a condition associated with the level of NOGO. The
; CC   treatment may further comprise the use of one or more therapies.
; CC   In particular, the NOGO-targetting nucleic acid may be used to treat
; CC   central nervous system (CNS) injury and cerebrovascular accident (CVA,
; CC   stroke), Alzheimer's disease, dementia, multiple sclerosis (MS),
; CC   chemotherapy-induced neuropathy, amyotrophic lateral sclerosis (ALS),
; CC   Parkinson's disease, ataxia, Huntington's disease, Creutzfeldt-Jakob
; CC   disease, muscular dystrophy, and/or other neurodegenerative disease
; CC   states which respond to the modulation of NOGO expression. The
; CC   present sequence is an amberzyme molecule of the invention.
; XX
; SQ   Sequence 17 BP; 11 A; 1 C; 2 G; 3 U; 0 other;
;
;  ABK02556  Length: 17  October 16, 2003 08:46  Type: N  Check: 327  ..
abk02556

  Query Match              0.3%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       2133 CTTTTTTTCTTTAATAA 2149
                ||||  |||||||||| |
Db         17 CTTTGTTTCTTTAATTA 1


RESULT 262
abk02894
;  TOIG of: abk02894  check: 1325  from: 1  to: 17
;
; ID   ABK02894 standard; RNA; 17 BP.
; XX
; AC   ABK02894;
; XX
; DT   12-MAR-2002  (first entry)
; XX
; DE   Human CD20 Hammerhead ribozyme #193.
; XX
; KW   Human; ss; antisense therapy; cytostatic; antiinflammatory; haemostatic;
; KW   cerebroprotective; nootropic; neuroprotective; antiparkinsonian;
; KW   muscular; CD20; neurite growth inhibitor gene; NOGO; hammerhead ribozyme;
; KW   DNAzyme; inozyme; G cleaver; amberzyme; zinzyme; lymphoma; leukaemia;
; KW   B-cell lymphoma; non-Hodgkin's lymphoma; NHL; lymphocytic leukaemia;
; KW   human immunodeficiency virus; HIV associated NHL; mantle-cell lymphoma;
; KW   MCL; immunocytoma; IMC; immune thrombocytopaenia; stroke; dementia;
; KW   inflammatory arthropathy; central nervous system injury;
; KW   cerebrovascular accident; CVA; Alzheimer's disease; multiple sclerosis;
; KW   chemotherapy-induced neuropathy; amyotrophic lateral sclerosis; ALS;
; KW   Parkinson's disease; ataxia; Huntington's disease;
; KW   Creutzfeldt-Jakob disease; muscular dystrophy; neurodegenerative disease.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; PN   WO200159103-A2.
; XX
; PD   16-AUG-2001.
; XX
; PF   09-FEB-2001; 2001WO US04273.
; XX
; PR   11-FEB-2000; 2000US-181797P.
; PR   28 FEB-2000; 2000US-185516P.
; PR   06-MAR-2000; 2000US-187128P.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC.
; PA   (BLAT/) BLATT L.
; PA   (MCSW/) MCSWIGGEN J.
; PA   (CHOW/) CHOWRIRA B M.
; XX
; PI   Blatt L, McSwiggen J, Chowrira BM;
; XX
; DR   WPI; 2001-607195/69.
; XX
; PT   Nucleic acid molecules, e.g., enzymatic nucleic acids and antisense
; PT   constructs, which down regulate expression of a CD20 gene or neurite
; PT   growth inhibitor gene useful for treating, e.g., lymphoma, leukemia,
; PT   and central nervous system injury -
; XX
; PS   Claim 30; Page 143; 200pp; English.
; XX
; CC   The invention relates to a nucleic acid molecule which down regulates
; CC   expression of a CD20 gene and a nucleic acid molecule which down
; CC   regulates expression of a neurite growth inhibitor gene (NOGO).
; CC   The nucleic acids may be enzymatic nucleic acids (e.g. a ribozyme or a
; CC   DNAzyme) an Inozyme (an endolytic nucleic acid cleaving a an RNA molecule
; CC   possessing an NCH motif), a G-cleaver (cleaving RNA with a NYN
; CC   motif) pr an amberzyme (cleaving RNA with an NGN triplet), a zinzyme
; CC   (cleaving RNA with a YGY motif). The CD20-targetting nucleic acid is used
; CC   to cleave RNA of CD20 in the presence of a divalent cation that is
; CC   preferably Mg^2^+. Furthermore, it may be contacted with a cell to reduce
; CC   CD20 activity of the cell and treat a patient having a condition
; CC   associated with the level of CD20. The treatment may further comprise the
; CC   use of one or more therapies. In particular, the CD20 targetting
; CC   nucleic acid may be used to treat lymphoma, leukaemia, B-cell
; CC   lymphoma, low-grade or follicular non-Hodgkin's lymphoma (NHL), bulky
; CC   low-grade or follicular NHL, lymphocytic leukaemia, HIV (human
; CC   immunodeficiency virus) associated NHL, mantle-cell lymphoma (MCL),
; CC   immunocytoma (IMC), small B-cell lymphocytic lymphoma, immune
; CC   thrombocytopaenia, and inflammatory arthropathy. The NOGO-targetting
; CC   nucleic acid is used to cleave RNA of the NOGO gene in the presence of a
; CC   divalent cation that is preferably Mg^2^+. Furthermore, the nucleic acid
```

; CC may be contacted with a cell to reduce NOGO activity of the cell and
; CC treat a patient having a condition associated with the level of NOGO. The
; CC treatment may further comprise the use of one or more therapies.
; CC In particular, the NOGO-targetting nucleic acid may be used to treat
; CC central nervous system (CNS) injury and cerebrovascular accident (CVA,
; CC stroke), Alzheimer's disease, dementia, multiple sclerosis (MS),
; CC chemotherapy-induced neuropathy, amyotrophic lateral sclerosis (ALS),
; CC Parkinson's disease, ataxia, Huntington's disease, Creutzfeldt-Jakob
; CC disease, muscular dystrophy, and/or other neurodegenetative disease
; CC states which respond to the modulation of NOGO expression. The
; CC present sequence is a hammerhead ribozyme of the invention.
; XX
; SQ Sequence 17 BP; 4 A; 3 C; 1 G; 9 U; 0 other;
;
; ABK02894 Length: 17 October 16, 2003 08:46 Type: N Check: 1325 ..
abk02894

Query Match 0.3%; Score 13.8; DB 1; Length 17;
Best Local Similarity 41.2%; Pred. No. 0;
Matches 7; Conservative 8; Mismatches 2; Indels 0; Gaps 0;

Qy 1332 GTTTCCTTTTTCAAAAA 1348
|:::||:::: |||
Db 1 GUUUCCUUUUUUAAACA 17

RESULT 263
abk03067/c
; TOIG of: abk03067 check: 1093 from: 1 to: 17
;
; ID ABK03067 standard; RNA; 17 BP.
; XX
; AC ABK03067;
; XX
; DT 12-MAR-2002 (first entry)
; XX
; DE Human CD20 Inozyme #18.
; XX
; KW Human; ss; antisense therapy; cytostatic; antiinflammatory; haemostatic;
; KW cerebroprotective; nootropic; neuroprotective; antiparkinsonian;
; KW muscular; CD20; neurite growth inhibitor gene; NOGO; hammerhead ribozyme;
; KW DNAzyme; inozyme; G-cleaver; amberzyme; zinzyme; lymphoma; leukaemia;
; KW B-cell lymphoma; non-Hodgkin's lymphoma; NHL; lymphocytic leukaemia;
; KW human immunodeficiency virus; HIV associated NHL; mantle-cell lymphoma;
; KW MCL; immunocytoma; IMC; immune thrombocytopaenia; stroke; dementia;
; KW inflammatory arthropathy; central nervous system injury;
; KW cerebrovascular accident; CVA; Alzheimer's disease; multiple sclerosis;
; KW chemotherapy-induced neuropathy; amyotrophic lateral sclerosis; ALS;
; KW Parkinson's disease; ataxia; Huntington's disease;
; KW Creutzfeldt-Jakob disease; muscular dystrophy; neurodegenerative disease.
; XX
; OS Homo sapiens.
; OS Synthetic.
; XX
; PN WO200159103-A2.
; XX
; PD 16-AUG-2001.
; XX
; PF 09-FEB-2001; 2001WO-US04273.
; XX
; PR 11-FEB-2000; 2000US-181797P.
; PR 28-FEB-2000; 2000US-185516P.
; PR 06-MAR-2000; 2000US-187128P.
; XX
; PA (RIBO-) RIBOZYME PHARM INC.
; PA (BLAT/) BLATT L.
; PA (MCSW/) MCSWIGGEN J.
; PA (CHOW/) CHOWRIRA B M.
; XX
; PI Blatt L, McSwiggen J, Chowrira BM;
; XX
; DR WPI; 2001-607195/69.
; XX
; PT Nucleic acid molecules, e.g., enzymatic nucleic acids and antisense
; PT constructs, which down regulate expression of a CD20 gene or neurite
; PT growth inhibitor gene useful for treating, e.g., lymphoma, leukemia,
; PT and central nervous system injury
; XX
; PS Claim 30; Page 146; 202pp; English.
; XX
; CC The invention relates to a nucleic acid molecule which down regulates
; CC expression of a CD20 gene and a nucleic acid molecule which down
; CC regulates expression of a neurite growth inhibitor gene (NOGO).
; CC The nucleic acids may be enzymatic nucleic acids (e.g. a ribozyme or a
; CC DNAzyme) an inozyme (an endolytic nucleic acid cleaving a an RNA molecule
; CC possessing an NCH motif), a G-cleaver (cleaving RNA with a NYN
; CC motif) or an amberzyme (cleaving RNA with an NGN triplet), a zinzyme
; CC (cleaving RNA with a YGY motif). The CD20 targetting nucleic acid is used
; CC to cleave RNA of CD20 in the presence of a divalent cation that is
; CC preferably Mg^{2+}. Furthermore, it may be contacted with a cell to reduce
; CC CD20 activity of the cell and treat a patient having a condition
; CC associated with the level of CD20. The treatment may further comprise the
; CC use of one or more therapies. In particular, the CD20 targetting
; CC nucleic acid may be used to treat lymphoma, leukaemia, B-cell
; CC lymphoma, low grade or follicular non-Hodgkin's lymphoma (NHL), bulky
; CC low-grade or follicular NHL, lymphocytic leukaemia, HIV (human
; CC immunodeficiency virus) associated NHL, mantle-cell lymphoma (MCL),
; CC immunocytoma (IMC), small B-cell lymphocytic lymphoma, immune
; CC thrombocytopaenia, and inflammatory arthropathy. The NOGO-targetting
; CC nucleic acid is used to cleave RNA of the NOGO gene in the presence of a
; CC divalent cation that is preferably Mg^{2+}. Furthermore, the nucleic acid
; CC may be contacted with a cell to reduce NOGO activity of the cell and
; CC treat a patient having a condition associated with the level of NOGO. The
; CC treatment may further comprise the use of one or more therapies.
; CC In particular, the NOGO targetting nucleic acid may be used to treat
; CC central nervous system (CNS) injury and cerebrovascular accident (CVA,
; CC stroke), Alzheimer's disease, dementia, multiple sclerosis (MS),
; CC chemotherapy-induced neuropathy, amyotrophic lateral sclerosis (ALS),
; CC Parkinson's disease, ataxia, Huntington's disease, Creutzfeldt-Jakob
; CC disease, muscular dystrophy, and/or other neurodegenerative disease
; CC states which respond to the modulation of NOGO expression. The
; CC present sequence is an inozyme of the invention.
; XX
; SQ Sequence 17 BP; 3 A; 3 C; 6 G; 5 U; 0 other;
;
; ABK03067 Length: 17 October 16, 2003 08:46 Type: N Check: 1093 ..
abk03067

Query Match 0.3%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 0;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 1249 AGTCTCCAAGGCCGCCA 1265
|.|||||||'||| ! ..
Db 17 AGTCTCCAAGGCCTCAA 1

RESULT 264
abk03423/c
; TOIG of: abk03423 check: 1527 from: 1 to: 17
;
; ID ABK03423 standard; RNA; 17 BP.
; XX
; AC ABK03423;
; XX
; DT 12-MAR-2002 (first entry)
; XX
; DE Human CD20 G-cleaver #38.
; XX
; KW Human; ss; antisense therapy; cytostatic; antiinflammatory; haemostatic;
; KW cerebroprotective; nootropic; neuroprotective; antiparkinsonian;
; KW muscular; CD20; neurite growth inhibitor gene; NOGO; hammerhead ribozyme;
; KW DNAzyme; inozyme; G-cleaver; amberzyme; zinzyme; lymphoma; leukaemia;
; KW B-cell lymphoma; non-Hodgkin's lymphoma; NHL; lymphocytic leukaemia;
; KW human immunodeficiency virus; HIV associated NHL; mantle-cell lymphoma;
; KW MCL; immunocytoma; IMC; immune thrombocytopaenia; stroke; dementia;

```
; KW   inflammatory arthropathy; central nervous system injury;
; KW   cerebrovascular accident; CVA; Alzheimer's disease; multiple sclerosis;
; KW   chemotherapy-induced neuropathy; amyotrophic lateral sclerosis; ALS;
; KW   Parkinson's disease; ataxia; Huntington's disease;
; KW   Creutzfeldt-Jakob disease; muscular dystrophy; neurodegenerative disease.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; PN   WO200159103-A2.
; XX
; PD   16-AUG-2001.
; XX
; PF   09-FEB-2001; 2001WO-US04273.
; XX
; PR   11-FEB-2000; 2000US-181797P.
; PR   28-FEB-2000; 2000US-185516P.
; PR   06-MAR-2000; 2000US-187128P.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC.
; PA   (BLAT/) BLATT L.
; PA   (MCSW/) MCSWIGGEN J.
; PA   (CHOW/) CHOWRIRA B M.
; XX
; PI   Blatt L,  McSwiggen J,  Chowrira BM;
; XX
; DR   WPI; 2001-607195/69.
; XX
; PT   Nucleic acid molecules, e.g., enzymatic nucleic acids and antisense
; PT   constructs, which down regulate expression of a CD20 gene or neurite
; PT   growth inhibitor gene useful for treating, e.g., lymphoma, leukemia,
; PT   and central nervous system injury  -
; XX
; PS   Claim 30; Page 152; 200pp; English.
; XX
; CC   The invention relates to a nucleic acid molecule which down regulates
; CC   expression of a CD20 gene and a nucleic acid molecule which down
; CC   regulates expression of a neurite growth inhibitor gene (NOGO).
; CC   The nucleic acids may be enzymatic nucleic acids (e.g. a ribozyme or a
; CC   DNAzyme) an Inozyme (an endolytic nucleic acid cleaving a an RNA molecule
; CC   possessing an NCH motif), a G-cleaver (cleaving RNA with a NYN
; CC   motif) pr an amberzyme (cleaving RNA with an NGN triplet), a zinzyme
; CC   (cleaving RNA with a YGY motif). The CD20-targetting nucleic acid is used
; CC   to cleave RNA of CD20 in the presence of a divalent cation that is
; CC   preferably Mg^2^+. Furthermore, it may be contacted with a cell to reduce
; CC   CD20 activity of the cell and treat a patient having a condition
; CC   associated with the level of CD20. The treatment may further comprise the
; CC   use of one or more therapies. In particular, the CD20 targetting
; CC   nucleic acid may be used to treat lymphoma, leukaemia, B-cell
; CC   lymphoma, low-grade or follicular non-Hodgkin's lymphoma (NHL), bulky
; CC   low-grade or follicular NHL, lymphocytic leukaemia, HIV (human
; CC   immunodeficiency virus) associated NHL, mantle-cell lymphoma (MCL),
; CC   immunocytoma (IMC), small B-cell lymphocytic lymphoma, immune
; CC   thrombocytopaenia, and inflammatory arthropathy. The NOGO-targetting
; CC   nucleic acid is used to cleave RNA of the NOGO gene in the presence of a
; CC   divalent cation that is preferably Mg^2^+. Furthermore, the nucleic acid
; CC   may be contacted with a cell to reduce NOGO activity of the cell and
; CC   treat a patient having a condition associated with the level of NOGO. The
; CC   treatment may further comprise the use of one or more therapies.
; CC   In particular, the NOGO-targetting nucleic acid may be used to treat
; CC   central nervous system (CNS) injury and cerebrovascular accident (CVA,
; CC   stroke), Alzheimer's disease, dementia, multiple sclerosis (MS),
; CC   chemotherapy-induced neuropathy, amyotrophic lateral sclerosis (ALS),
; CC   Parkinson's disease, ataxia, Huntington's disease, Creutzfeldt-Jakob
; CC   disease, muscular dystrophy, and/or other neurodegenerative disease
; CC   states which respond to the modulation of NOGO expression. The
; CC   present sequence is a G-cleaver molecule of the invention.
; XX
; SQ   Sequence 17 BP; 8 A; 1 C; 2 G; 6 U; 0 other;
;
;  ABK03423  Length: 17  October 16, 2003 08:46  Type: N  Check: 1527  ..
abk03423
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  Query Match             0.3%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       4473 AATAATTTGAATGTATT 4489
              ||||||| |||'| ||
Db         17 AATAATTTCAATGTCTT 1


RESULT 265
abk03642/c
;  TCIG of: abk03642  check: 543  from: 1  to: 17
;
; ID   ABK03642 standard; RNA; 17 BP.
; XX
; AC   ABK03642;
; XX
; DT   12-MAR-2002  (first entry)
; XX
; DE   Human CD20 DNAzyme #96.
; XX
; KW   Human; ss; antisense therapy; cytostatic; antiinflammatory; haemostatic;
; KW   cerebroprotective; nootropic; neuroprotective; antiparkinsonian;
; KW   muscular; CD20; neurite growth inhibitor gene; NOGO; hammerhead ribozyme;
; KW   DNAzyme; inozyme; G-cleaver; amberzyme; zinzyme; lymphoma; leukaemia;
; KW   B-cell lymphoma; non-Hodgkin's lymphoma; NHL; lymphocytic leukaemia;
; KW   human immunodeficiency virus; HIV associated NHL; mantle-cell lymphoma;
; KW   MCL; immunocytoma; IMC; immune thrombocytopaenia; stroke; dementia;
; KW   inflammatory arthropathy; central nervous system injury;
; KW   cerebrovascular accident; CVA; Alzheimer's disease; multiple sclerosis;
; KW   chemotherapy-induced neuropathy; amyotrophic lateral sclerosis; ALS;
; KW   Parkinson's disease; ataxia; Huntington's disease;
; KW   Creutzfeldt-Jakob disease; muscular dystrophy; neurodegenerative disease.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; PN   WO200159103-A2.
; XX
; PD   16-AUG-2001.
; XX
; PF   09-FEB-2001; 2001WO-US04273.
; XX
; PR   11-FEB-2000; 2000US-181797P.
; PR   28-FEB-2000; 2000US-185516P.
; PR   06-MAR-2000; 2000US-187128P.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC.
; PA   (BLAT/) BLATT L.
; PA   (MCSW/) MCSWIGGEN J.
; PA   (CHOW/) CHOWRIRA B M.
; XX
; PI   Blatt L,  McSwiggen J,  Chowrira BM;
; XX
; DR   WPI; 2001-607195/69.
; XX
; PT   Nucleic acid molecules, e.g., enzymatic nucleic acids and antisense
; PT   constructs, which down regulate expression of a CD20 gene or neurite
; PT   growth inhibitor gene useful for treating, e.g., lymphoma, leukemia,
; PT   and central nervous system injury  -
; XX
; PS   Claim 30; Page 161; 200pp; English.
; XX
; CC   The invention relates to a nucleic acid molecule which down regulates
; CC   expression of a CD20 gene and a nucleic acid molecule which down
; CC   regulates expression of a neurite growth inhibitor gene (NOGO).
; CC   The nucleic acids may be enzymatic nucleic acids (e.g. a ribozyme or a
; CC   DNAzyme) an Inozyme (an endolytic nucleic acid cleaving a an RNA molecule
; CC   possessing an NCH motif), a G-cleaver (cleaving RNA with a NYN
; CC   motif) pr an amberzyme (cleaving RNA with an NGN triplet), a zinzyme
; CC   (cleaving RNA with a YGY motif). The CD20-targetting nucleic acid is used
; CC   to cleave RNA of CD20 in the presence of a divalent cation that is
; CC   preferably Mg^2^+. Furthermore, it may be contacted with a cell to reduce
```

; CC CD20 activity of the cell and treat a patient having a condition
; CC associated with the level of CD20. The treatment may further comprise the
; CC use of one or more therapies. In particular, the CD20 targetting
; CC nucleic acid may be used to treat lymphoma, leukaemia, B-cell
; CC lymphoma, low-grade or follicular non-Hodgkin's lymphoma (NHL), bulky
; CC low-grade or follicular NHL, lymphocytic leukaemia, HIV (human
; CC immunodeficiency virus) associated NHL, mantle-cell lymphoma (MCL),
; CC immunocytoma (IMC), small B-cell lymphocytic lymphoma, immune
; CC thrombocytopaenia, and inflammatory arthropathy. The NOGO-targetting
; CC nucleic acid is used to cleave RNA of the NOGO gene in the presence of a
; CC divalent cation that is preferably Mg^2^+. Furthermore, the nucleic acid
; CC may be contacted with a cell to reduce NOGO activity of the cell and
; CC treat a patient having a condition associated with the level of NOGO. The
; CC treatment may further comprise the use of one or more therapies.
; CC In particular, the NOGO-targetting nucleic acid may be used to treat
; CC central nervous system (CNS) injury and cerebrovascular accident (CVA,
; CC stroke), Alzheimer's disease, dementia, multiple sclerosis (MS),
; CC chemotherapy-induced neuropathy, amyotrophic lateral sclerosis (ALS),
; CC Parkinson's disease, ataxia, Huntington's disease, Creutzfeldt-Jakob
; CC disease, muscular dystrophy, and/or other neurodegenerative disease
; CC states which respond to the modulation of NOGO expression. The
; CC present sequence is a DNAzyme molecule of the invention.
; XX
; SQ Sequence 17 BP; 13 A; 2 C; 0 G; 2 U; 0 other;
;
; ABK03642 Length: 17 October 16, 2003 08:46 Type: N Check: 543 ..
abk03642

Query Match 0.3%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 0;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 4499 AGTTTTTTTTTTTTTTT 4515
|||| || |||||||||
Db 17 AGTTGTTATTTTTTTTT 1

RESULT 266
abk17880
; TOIG of: abk17880 check: 297 from: 1 to: 17
;
; ID ABK17880 standard; RNA; 17 BP.
; XX
; AC ABK17880;
; XX
; DT 09-APR-2002 (first entry)
; XX
; DE Human ERG hammerhead ribozyme target sequence, Seq ID No 527.
; XX
; KW Human; hammerhead ribozyme; cytostatic; antitumour; antidiabetic;
; KW ophthalmological; antiarthritic; antipsoriatic; virucide; osteopathic;
; KW vulnerary; cancer; lymphoma; Ewing's sarcoma; melanoma; psoriasis;
; KW tumour angiogenesis; diabetic retinopathy; macular degeneration;
; KW neovascular glaucoma; myopic degeneration; arthritis; verruca vulgaris;
; KW angiofibroma of tuberous sclerosis; port-wine stain; wound healing;
; KW Sturge Weber syndrome; Kippel-Trenaunay-Weber syndrome; leukaemia; ss;
; KW Osler-Weber-rendu syndrome, leukaemia; osteoporosis; DNAzyme; inozyme;
; KW amberzyme.
; XX
; OS Homo sapiens.
; XX
; PN WO200188124-A2.
; XX
; PD 22-NOV-2001.
; XX
; PF 16-MAY-2001; 2001WO-US15866.
; XX
; PR 16-MAY-2000; 2000US-0572021.
; XX
; PA (RIBO-) RIBOZYME PHARM INC.
; PA (GLAX) GLAXO GROUP LTD.
; XX
; PI Jarvis T, Von Carlowitz I, McSwiggen JA, Mclaughlin F, Randi AM;
; XX
; DR WPI; 2002-082995/11.
; XX
; PT Novel polynucleotide which down regulates expression of Ets-related
; PT gene, useful for treating cancer, diabetic retinopathy, macular
; PT degeneration, arthritis, psoriasis, verruca vulgaris and Sturge Weber
; PT syndrome -
; XX
; PS Claim 4; Page 68; 149pp; English.
; XX
; CC The invention relates to a nucleic acid molecule (I) which down regulates
; CC expression of an Ets-related gene (ERG). (I) is useful for treating
; CC conditions selected from cancer, lymphoma, Ewing's sarcoma, melanoma,
; CC tumour angiogenesis, diabetic retinopathy, macular degeneration,
; CC neovascular glaucoma, myopic degeneration, arthritis, psoriasis, verruca
; CC vulgaris, angiofibroma of tuberous sclerosis, port-wine stains, Sturge
; CC Weber syndrome, Kippel-Trenaunay Weber syndrome, Osler-Weber rendu
; CC syndrome, leukaemia, osteoporosis and wound healing. (I) is useful for
; CC treating a patient having a condition associated with the level of ERG,
; CC by contacting cells of the patient with (I) under conditions suitable for
; CC the treatment. The method comprises the use of one or more therapies
; CC under conditions suitable for the treatment. Leukaemia or tumour
; CC angiogenesis is treated by administering (I) to the patient in
; CC conjunction with one or more of other therapies such as radiation or
; CC chemotherapy treatment. (I) is useful for reducing ERG activity in a
; CC cell, by contacting the cell with (I). (I) is useful for cleaving RNA of
; CC ERG gene, by contacting (I) with RNA, in the presence of a divalent
; CC cation such as Mg2+. (I) is useful for diagnosis of conditions and
; CC diseases related to the expression of ERG, and as diagnostic tool to
; CC examine genetic drift and mutations within diseased cells or to detect
; CC the presence of ERG RNA in a cell. (I) is useful for specifically
; CC targeting genes that share homology with ERG gene or ERG fusion genes.
; CC ABK17354-ABK22719 represent nucleic acids, including antisense and
; CC enzymatic nucleic acid molecules which regulate expression of ERG, and
; CC related PCR primers of the invention.
; XX
; SQ Sequence 17 BP; 7 A; 4 C; 6 G; 0 U; 0 other;
;
; ABK17880 Length: 17 October 16, 2003 08:46 Type: N Check: 297 ..
abk17880

Query Match 0.3%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 0;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 3411 GGAAGAAGCAAGGGCAA 3427
|| |||| ||'|||||
Db 1 GGCAGAACCAAGGGCAA 17

RESULT 267
abk18022/c
; TOIG of: abk18022 check: 443 from: 1 to: 17
;
; ID ABK18022 standard; RNA; 17 BP.
; XX
; AC ABK18022;
; XX
; DT 09-APR-2002 (first entry)
; XX
; DE Human ERG hammerhead ribozyme target sequence, Seq ID No 669.
; XX
; KW Human; hammerhead ribozyme; cytostatic; antitumour; antidiabetic;
; KW ophthalmological; antiarthritic; antipsoriatic; virucide; osteopathic;
; KW vulnerary; cancer; lymphoma; Ewing's sarcoma; melanoma; psoriasis;
; KW tumour angiogenesis; diabetic retinopathy; macular degeneration;
; KW neovascular glaucoma; myopic degeneration; arthritis; verruca vulgaris;
; KW angiofibroma of tuberous sclerosis; port-wine stain; wound healing;
; KW Sturge Weber syndrome; Kippel-Trenaunay-Weber syndrome; leukaemia; ss;
; KW Osler-Weber-rendu syndrome, leukaemia; osteoporosis; DNAzyme; inozyme;
; KW amberzyme.
; XX
; OS Homo sapiens.

```
; XX
; PN   WO200188124-A2.
; XX
; PD   22-NOV-2001.
; XX
; PF   16-MAY-2001; 2001WO-US15866.
; XX
; PR   16-MAY-2000; 2000US-0572021.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC.
; PA   (GLAX ) GLAXO GROUP LTD.
; XX
; PI   Jarvis T, Von Carlowitz I, McSwiggen JA, Mclaughlin F, Randi AM;
; XX
; DR   WPI; 2002-082995/11.
; XX
; PT   Novel polynucleotide which down regulates expression of Ets-related
; PT   gene, useful for treating cancer, diabetic retinopathy, macular
; PT   degeneration, arthritis, psoriasis, verruca vulgaris and Sturge Weber
; PT   syndrome -
; XX
; PS   Claim 4; Page 71; 149pp; English.
; XX
; CC   The invention relates to a nucleic acid molecule (I) which down regulates
; CC   expression of an Ets-related gene (ERG). (I) is useful for treating
; CC   conditions selected from cancer, lymphoma, Ewing's sarcoma, melanoma,
; CC   tumour angiogenesis, diabetic retinopathy, macular degeneration,
; CC   neovascular glaucoma, myopic degeneration, arthritis, psoriasis, verruca
; CC   vulgaris, angiofibroma of tuberous sclerosis, port-wine stains, Sturge
; CC   Weber syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-rendu
; CC   syndrome, leukaemia, osteoporosis and wound healing. (I) is useful for
; CC   treating a patient having a condition associated with the level of ERG,
; CC   by contacting cells of the patient with (I) under conditions suitable for
; CC   the treatment. The method comprises the use of one or more therapies
; CC   under conditions suitable for the treatment. Leukaemia or tumour
; CC   angiogenesis is treated by administering (I) to the patient in
; CC   conjunction with one or more of other therapies such as radiation or
; CC   chemotherapy treatment. (I) is useful for reducing ERG activity in a
; CC   cell, by contacting the cell with (I). (I) is useful for cleaving RNA of
; CC   ERG gene, by contacting (I) with RNA, in the presence of a divalent
; CC   cation such as Mg2+. (I) is useful for diagnosis of conditions and
; CC   diseases related to the expression of ERG, and as diagnostic tool to
; CC   examine genetic drift and mutations within diseased cells or to detect
; CC   the presence of ERG RNA in a cell. (I) is useful for specifically
; CC   targeting genes that share homology with ERG gene or ERG fusion genes.
; CC   ABK17354-ABK22719 represent nucleic acids, including antisense and
; CC   enzymatic nucleic acid molecules which regulate expression of ERG, and
; CC   related PCR primers of the invention.
; XX
; SQ   Sequence 17 BP; 5 A; 9 C; 1 G; 2 U; 0 other;
;
;  ABK18022  Length: 17  October 16, 2003 08:46  Type: N  Check: 443  ..
abk18022

  Query Match              0.3%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       1104 TTGGAGCTGTGGGTGAG 1120
              ||| ||||| |||||||
Db         17 TTGTAGCTGGGGGTGAG 1


RESULT 268
abk19385
;  TOIG of: abk19385  check: 421  from: 1  to: 17
;
; ID   ABK19385 standard; RNA; 17 BP.
; XX
; AC   ABK19385;
; XX
; DT   09-APR-2002  (first entry)
; XX
; DE   Human ERG Amberzyme target sequence Seq ID No 2032.
; XX
; KW   Human; hammerhead ribozyme; cytostatic; antitumour; antidiabetic;
; KW   ophthalmological; antiarthritic; antipsoriatic; virucide; osteopathic;
; KW   vulnerary; cancer; lymphoma; Ewing's sarcoma; melanoma; psoriasis;
; KW   tumour angiogenesis; diabetic retinopathy; macular degeneration;
; KW   neovascular glaucoma; myopic degeneration; arthritis; verruca vulgaris;
; KW   angiofibroma of tuberous sclerosis; port-wine stain; wound healing;
; KW   Sturge Weber syndrome; Kippel-Trenaunay-Weber syndrome; leukaemia; ss;
; KW   Osler-Weber-rendu syndrome, leukaemia; osteoporosis; DNAzyme; inozyme;
; KW   amberzyme.
; XX
; OS   Homo sapiens.
; XX
; PN   WO200188124-A2.
; XX
; PD   22-NOV-2001.
; XX
; PF   16-MAY-2001; 2001WO-US15866.
; XX
; PR   16-MAY-2000; 2000US-0572021.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC.
; PA   (GLAX ) GLAXO GROUP LTD.
; XX
; PI   Jarvis T, Von Carlowitz I, McSwiggen JA, Mclaughlin F, Randi AM;
; XX
; DR   WPI; 2002-082995/11.
; XX
; PT   Novel polynucleotide which down regulates expression of Ets-related
; PT   gene, useful for treating cancer, diabetic retinopathy, macular
; PT   degeneration, arthritis, psoriasis, verruca vulgaris and Sturge Weber
; PT   syndrome -
; XX
; PS   Claim 4; Page 127; 149pp; English.
; XX
; CC   The invention relates to a nucleic acid molecule (I) which down regulates
; CC   expression of an Ets-related gene (ERG). (I) is useful for treating
; CC   conditions selected from cancer, lymphoma, Ewing's sarcoma, melanoma,
; CC   tumour angiogenesis, diabetic retinopathy, macular degeneration,
; CC   neovascular glaucoma, myopic degeneration, arthritis, psoriasis, verruca
; CC   vulgaris, angiofibroma of tuberous sclerosis, port-wine stains, Sturge
; CC   Weber syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-rendu
; CC   syndrome, leukaemia, osteoporosis and wound healing. (I) is useful for
; CC   treating a patient having a condition associated with the level of ERG,
; CC   by contacting cells of the patient with (I) under conditions suitable for
; CC   the treatment. The method comprises the use of one or more therapies
; CC   under conditions suitable for the treatment. Leukaemia or tumour
; CC   angiogenesis is treated by administering (I) to the patient in
; CC   conjunction with one or more of other therapies such as radiation or
; CC   chemotherapy treatment. (I) is useful for reducing ERG activity in a
; CC   cell, by contacting the cell with (I). (I) is useful for cleaving RNA of
; CC   ERG gene, by contacting (I) with RNA, in the presence of a divalent
; CC   cation such as Mg2+. (I) is useful for diagnosis of conditions and
; CC   diseases related to the expression of ERG, and as diagnostic tool to
; CC   examine genetic drift and mutations within diseased cells or to detect
; CC   the presence of ERG RNA in a cell. (I) is useful for specifically
; CC   targeting genes that share homology with ERG gene or ERG fusion genes.
; CC   ABK17354-ABK22719 represent nucleic acids, including antisense and
; CC   enzymatic nucleic acid molecules which regulate expression of ERG, and
; CC   related PCR primers of the invention.
; XX
; SQ   Sequence 17 BP; 8 A; 0 C; 8 G; 1 U; 0 other;
;
;  ABK19385  Length: 17  October 16, 2003 08:46  Type: N  Check: 421  ..
abk19385

  Query Match              0.3%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   82.4%;  Pred. No. 0;
  Matches   14;  Conservative    1;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       3381 TGTAGAAGTAGGAGGAA 3397
              :| ||||| |||||||||
```

```
Db          1 UGAAGAAGGAGGAGGAA 17


RESULT 269
abt34584
;  TOIG of: abt34584  check: 1798  from: 1  to: 17
;
; ID   ABT34584 standard; DNA; 17 BP.
; XX
; AC   ABT34584;
; XX
; DT   12-JUN-2003  (first entry)
; XX
; DE   Tumour suppression related human fukutin oligo SEQ ID No 221.
; XX
; KW   Cytostatic; virucide; neuroprotective; nootropic; neuroleptic; gene chip;
; KW   antisense; sense; tumour; cell degeneration; cancer; Alzheimer's disease;
; KW   schizophrenia; protein chip; gene therapy; tumour suppression;
; KW   human fukutin; ds.
; XX
; OS   Homo sapiens.
; XX
; PN   WO2003025175-A2.
; XX
; PD   27-MAR-2003.
; XX
; PF   17-SEP-2002; 2002WO-IB04208.
; XX
; PR   17-SEP-2001; 2001FR-0011978.
; XX
; PA   (MOLE-) MOLECULAR ENGINES LAB.
; XX
; PI   Telerman A,  Amson R,  Tuijnder M;
; XX
; DR   WPI; 2003-313353/30.
; XX
; PT   New isolated nucleic acid, useful for treating viral diseases
; PT   associated with tumors and cell degeneration, also related
; PT   polypeptides, antibodies and transfected cells  -
; XX
; PS   Disclosure; Page 59; 720pp; French.
; XX
; CC   The invention relates to a novel isolated 17 mer nucleic acid sequence,
; CC   given in the specification, a sequence containing at least 15
; CC   consecutive nucleotides from the 17 mer sequence, a sequence with, after
; CC   optimal alignment, at least 80 % identity to the 17 mer sequence, a
; CC   sequence that hybridizes to them under highly stringent conditions, or
; CC   the complement of any of them, or the corresponding RNA. The novel
; CC   isolated nucleic acids of the invention are useful as probes and primers
; CC   for detecting, identifying, quantifying and/or amplifying a nucleic acid,
; CC   e.g. as one component of a gene chip, in vitro as (anti)sense reagents,
; CC   and for production of recombinant polypeptides. Any of the nucleic acids,
; CC   polypeptides, vectors containing the nucleic acids, cells containing the
; CC   vector or antibodies directed against the polypeptides are useful for
; CC   preparation of pharmaceuticals for prevention and/or treatment of viral
; CC   diseases that are characterised by development of tumours or cell
; CC   degeneration, specifically cancer but also Alzheimer's disease and
; CC   schizophrenia. Analysis of the expression of the 17 mer nucleic acids in
; CC   patient samples is useful for diagnosis and/or prognosis of these
; CC   diseases. The polypeptides can also be used to generate antibodies, and
; CC   both the polypeptide and antibodies are useful as components of protein
; CC   chips. The nucleic acid sequences of the invention can be used in gene
; CC   therapy. This polynucleotide sequence represents a tumour suppression
; CC   related human fukutin oligonucleotide of the invention.
; XX
; SQ   Sequence 17 BP; 2 A; 5 C; 1 G; 9 T; 0 other;
;
;  ABT34584  Length: 17  October 16, 2003 08:46  Type: N  Check: 1798  ..
abt34584

  Query Match             0.3%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       5067 GATTTTTTCCCTTTTTA 5083
                ||| | |||.|||. ||
Db          1 GATCTCTTCCCTTTTTA 17


RESULT 270
abt35737/c
;  TOIG of: abt35737  check: 957  from: 1  to: 17
;
; ID   ABT35737 standard; DNA; 17 BP.
; XX
; AC   ABT35737;
; XX
; DT   12-JUN-2003  (first entry)
; XX
; DE   Tumour suppression related human fukutin oligo SEQ ID No 1374.
; XX
; KW   Cytostatic; virucide; neuroprotective; nootropic; neuroleptic; gene chip;
; KW   antisense; sense; tumour; cell degeneration; cancer; Alzheimer's disease;
; KW   schizophrenia; protein chip; gene therapy; tumour suppression;
; KW   human fukutin; ds.
; XX
; OS   Homo sapiens.
; XX
; PN   WO2003025175-A2.
; XX
; PD   27-MAR-2003.
; XX
; PF   17-SEP-2002; 2002WO-IB04208.
; XX
; PR   17-SEP-2001; 2001FR-0011978.
; XX
; PA   (MOLE-) MOLECULAR ENGINES LAB.
; XX
; PI   Telerman A,  Amson R,  Tuijnder M;
; XX
; DR   WPI; 2003-313353/30.
; XX
; PT   New isolated nucleic acid, useful for treating viral diseases
; PT   associated with tumors and cell degeneration, also related
; PT   polypeptides, antibodies and transfected cells  -
; XX
; PS   Disclosure; Page 193; 720pp; French.
; XX
; CC   The invention relates to a novel isolated 17 mer nucleic acid sequence,
; CC   given in the specification, a sequence containing at least 15
; CC   consecutive nucleotides from the 17 mer sequence, a sequence with, after
; CC   optimal alignment, at least 80 % identity to the 17 mer sequence, a
; CC   sequence that hybridizes to them under highly stringent conditions, or
; CC   the complement of any of them, or the corresponding RNA. The novel
; CC   isolated nucleic acids of the invention are useful as probes and primers
; CC   for detecting, identifying, quantifying and/or amplifying a nucleic acid,
; CC   e.g. as one component of a gene chip, in vitro as (anti)sense reagents,
; CC   and for production of recombinant polypeptides. Any of the nucleic acids,
; CC   polypeptides, vectors containing the nucleic acids, cells containing the
; CC   vector or antibodies directed against the polypeptides are useful for
; CC   preparation of pharmaceuticals for prevention and/or treatment of viral
; CC   diseases that are characterised by development of tumours or cell
; CC   degeneration, specifically cancer but also Alzheimer's disease and
; CC   schizophrenia. Analysis of the expression of the 17 mer nucleic acids in
; CC   patient samples is useful for diagnosis and/or prognosis of these
; CC   diseases. The polypeptides can also be used to generate antibodies, and
; CC   both the polypeptide and antibodies are useful as components of protein
; CC   chips. The nucleic acid sequences of the invention can be used in gene
; CC   therapy. This polynucleotide sequence represents a tumour suppression
; CC   related human fukutin oligonucleotide of the invention.
; XX
; SQ   Sequence 17 BP; 5 A; 3 C; 5 G; 4 T; 0 other;
;
;  ABT35737  Length: 17  October 16, 2003 08:46  Type: N  Check: 957  ..
abt35737
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```
  Query Match             0.3%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       3929 TAATTCCACAGGTCATC 3945
              | ||||||||||| |||
Db         17 TCATTCCACAGGTGATC 1


RESULT 271
abt37340
;  TOIG of: abt37340  check: 639  from: 1  to: 17
;
; ID   ABT37340 standard; DNA; 17 BP.
; XX
; AC   ABT37340;
; XX
; DT   12-JUN-2003  (first entry)
; XX
; DE   Tumour suppression related human fukutin oligo SEQ ID No 2977.
; XX
; KW   Cytostatic; virucide; neuroprotective; nootropic; neuroleptic; gene chip;
; KW   antisense; sense; tumour; cell degeneration; cancer; Alzheimer's disease;
; KW   schizophrenia; protein chip; gene therapy; tumour suppression;
; KW   human fukutin; ds.
; XX
; OS   Homo sapiens.
; XX
; PN   WO2003025175-A2.
; XX
; PD   27-MAR-2003.
; XX
; PF   17-SEP-2002; 2002WO-IB04208.
; XX
; PR   17-SEP-2001; 2001FR-0011978.
; XX
; PA   (MOLE-) MOLECULAR ENGINES LAB.
; XX
; PI   Telerman A,  Amson R,  Tuijnder M;
; XX
; DR   WPI; 2003-313353/30.
; XX
; PT   New isolated nucleic acid, useful for treating viral diseases
; PT   associated with tumors and cell degeneration, also related
; PT   polypeptides, antibodies and transfected cells
; XX
; PS   Disclosure; Page 381; 720pp; French.
; XX
; CC   The invention relates to a novel isolated 17 mer nucleic acid sequence,
; CC   given in the specification, a sequence containing at least 15
; CC   consecutive nucleotides from the 17 mer sequence, a sequence with, after
; CC   optimal alignment, at least 80 % identity to the 17 mer sequence, a
; CC   sequence that hybridizes to them under highly stringent conditions, or
; CC   the complement of any of them, or the corresponding RNA. The novel
; CC   isolated nucleic acids of the invention are useful as probes and primers
; CC   for detecting, identifying, quantifying and/or amplifying a nucleic acid,
; CC   e.g. as one component of a gene chip, in vitro as (anti)sense reagents,
; CC   and for production of recombinant polypeptides. Any of the nucleic acids,
; CC   polypeptides, vectors containing the nucleic acids, cells containing the
; CC   vector or antibodies directed against the polypeptides are useful for
; CC   preparation of pharmaceuticals for prevention and/or treatment of viral
; CC   diseases that are characterised by development of tumours or cell
; CC   degeneration, specifically cancer but also Alzheimer's disease and
; CC   schizophrenia. Analysis of the expression of the 17 mer nucleic acids in
; CC   patient samples is useful for diagnosis and/or prognosis of these
; CC   diseases. The polypeptides can also be used to generate antibodies, and
; CC   both the polypeptide and antibodies are useful as components of protein
; CC   chips. The nucleic acid sequences of the invention can be used in gene
; CC   therapy. This polynucleotide sequence represents a tumour suppression
; CC   related human fukutin oligonucleotide of the invention.
; XX
; SQ   Sequence 17 BP; 4 A; 5 C; 5 G; 3 T; 0 other;
;
; ABT37340 Length: 17  October 16, 2003 08:46  Type: N  Check: 639  ..
abt37340

  Query Match             0.3%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       4832 GATCCTTCAGCACAGGA 4848
              ||||||| ||| ||| |
Db          1 GATCCTTGAGCCCAGGA 17


RESULT 272
abt38630
;  TOIG of: abt38630  check: 149  from: 1  to: 17
;
; ID   ABT38630 standard; DNA; 17 BP.
; XX
; AC   ABT38630;
; XX
; DT   12-JUN-2003  (first entry)
; XX
; DE   Tumour suppression related human fukutin oligo SEQ ID No 4267.
; XX
; KW   Cytostatic; virucide; neuroprotective; nootropic; neuroleptic; gene chip;
; KW   antisense; sense; tumour; cell degeneration; cancer; Alzheimer's disease;
; KW   schizophrenia; protein chip; gene therapy; tumour suppression;
; KW   human fukutin; ds.
; XX
; OS   Homo sapiens.
; XX
; PN   WO2003025175-A2.
; XX
; PD   27-MAR-2003.
; XX
; PF   17-SEP-2002; 2002WO-IB04208.
; XX
; PR   17-SEP-2001; 2001FR-0011978.
; XX
; PA   (MOLE-) MOLECULAR ENGINES LAB.
; XX
; PI   Telerman A,  Amson R,  Tuijnder M;
; XX
; DR   WPI; 2003-313353/30.
; XX
; PT   New isolated nucleic acid, useful for treating viral diseases
; PT   associated with tumors and cell degeneration, also related
; PT   polypeptides, antibodies and transfected cells
; XX
; PS   Disclosure; Page 532; 720pp; French.
; XX
; CC   The invention relates to a novel isolated 17 mer nucleic acid sequence,
; CC   given in the specification, a sequence containing at least 15
; CC   consecutive nucleotides from the 17 mer sequence, a sequence with, after
; CC   optimal alignment, at least 80 % identity to the 17 mer sequence, a
; CC   sequence that hybridizes to them under highly stringent conditions, or
; CC   the complement of any of them, or the corresponding RNA. The novel
; CC   isolated nucleic acids of the invention are useful as probes and primers
; CC   for detecting, identifying, quantifying and/or amplifying a nucleic acid,
; CC   e.g. as one component of a gene chip, in vitro as (anti)sense reagents,
; CC   and for production of recombinant polypeptides. Any of the nucleic acids,
; CC   polypeptides, vectors containing the nucleic acids, cells containing the
; CC   vector or antibodies directed against the polypeptides are useful for
; CC   preparation of pharmaceuticals for prevention and/or treatment of viral
; CC   diseases that are characterised by development of tumours or cell
; CC   degeneration, specifically cancer but also Alzheimer's disease and
; CC   schizophrenia. Analysis of the expression of the 17 mer nucleic acids in
; CC   patient samples is useful for diagnosis and/or prognosis of these
; CC   diseases. The polypeptides can also be used to generate antibodies, and
; CC   both the polypeptide and antibodies are useful as components of protein
; CC   chips. The nucleic acid sequences of the invention can be used in gene
; CC   therapy. This polynucleotide sequence represents a tumour suppression
; CC   related human fukutin oligonucleotide of the invention.
```

```
; XX
; SQ   Sequence 17 BP; 12 A; 2 C; 1 G; 2 T; 0 other;
;
;  ABT38630  Length: 17  October 16, 2003 08:46  Type: N  Check: 140  ..
abt38630

  Query Match             0.3%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       5201 GAATCTAAAAAAAAAAA 5217
              ||  ||||||||||||||
Db          1 GATCCTAAAAAAAAAAA 17


RESULT 273
abt38835/c
;  TOIG of: abt38835  check: 923  from: 1  to: 17
;
; ID   ABT38835 standard; DNA; 17 BP.
; XX
; AC   ABT38835;
; XX
; DT   12-JUN-2003  (first entry)
; XX
; DE   Tumour suppression related human fukutin oligo SEQ ID No 4472.
; XX
; KW   Cytostatic; virucide; neuroprotective; nootropic; neuroleptic; gene chip;
; KW   antisense; sense; tumour; cell degeneration; cancer; Alzheimer's disease;
; KW   schizophrenia; protein chip; gene therapy; tumour suppression;
; KW   human fukutin; ds.
; XX
; OS   Homo sapiens.
; XX
; PN   WO2003025175-A2.
; XX
; PD   27-MAR-2003.
; XX
; PF   17-SEP-2002; 2002WO-IB04208.
; XX
; PR   17-SEP-2001; 2001FR-0011978.
; XX
; PA   (MOLE-) MOLECULAR ENGINES LAB.
; XX
; PI   Telerman A,  Amson R,  Tuijnder M;
; XX
; DR   WPI; 2003-313353/30.
; XX
; PT   New isolated nucleic acid, useful for treating viral diseases
; PT   associated with tumors and cell degeneration, also related
; PT   polypeptides, antibodies and transfected cells  -
; XX
; PS   Disclosure; Page 556; 720pp; French.
; XX
; CC   The invention relates to a novel isolated 17 mer nucleic acid sequence,
; CC   given in the specification, a sequence containing at least 15
; CC   consecutive nucleotides from the 17 mer sequence, a sequence with, after
; CC   optimal alignment, at least 80 % identity to the 17 mer sequence, a
; CC   sequence that hybridizes to them under highly stringent conditions, or
; CC   the complement of any of them, or the corresponding RNA. The novel
; CC   isolated nucleic acids of the invention are useful as probes and primers
; CC   for detecting, identifying, quantifying and/or amplifying a nucleic acid,
; CC   e.g. as one component of a gene chip, in vitro as (anti)sense reagents,
; CC   and for production of recombinant polypeptides. Any of the nucleic acids,
; CC   polypeptides, vectors containing the nucleic acids, cells containing the
; CC   vector or antibodies directed against the polypeptides are useful for
; CC   preparation of pharmaceuticals for prevention and/or treatment of viral
; CC   diseases that are characterised by development of tumours or cell
; CC   degeneration, specifically cancer but also Alzheimer's disease and
; CC   schizophrenia. Analysis of the expression of the 17 mer nucleic acids in
; CC   patient samples is useful for diagnosis and/or prognosis of these
; CC   diseases. The polypeptides can also be used to generate antibodies, and
; CC   both the polypeptide and antibodies are useful as components of protein
; CC   chips. The nucleic acid sequences of the invention can be used in gene
; CC   therapy. This polynucleotide sequence represents a tumour suppression
; CC   related human fukutin oligonucleotide of the invention.
; XX
; SQ   Sequence 17 BP; 3 A; 5 C; 5 G; 4 T; 0 other;
;
;  ABT38835  Length: 17  October 16, 2003 08:46  Type: N  Check: 923  ..
abt38835

  Query Match             0.3%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       3802 CCTGGACTAAAGGCATC 3818
              ||||:|||  ||| ||||
Db         17 CCTGGACTCAAGGGATC 1


RESULT 274
abt40072
;  TOIG of: abt40072  check: 1658  from: 1  to: 17
;
; ID   ABT40072 standard; DNA; 17 BP.
; XX
; AC   ABT40072;
; XX
; DT   12-JUN-2003  (first entry)
; XX
; DE   Tumour suppression related human fukutin oligo SEQ ID No 8709.
; XX
; KW   Cytostatic; virucide; neuroprotective; nootropic; neuroleptic; gene chip;
; KW   antisense; sense; tumour; cell degeneration; cancer; Alzheimer's disease;
; KW   schizophrenia; protein chip; gene therapy; tumour suppression;
; KW   human fukutin; ds.
; XX
; OS   Homo sapiens.
; XX
; PN   WO2003025175-A2.
; XX
; PD   27-MAR-2003.
; XX
; PF   17-SEP-2002; 2002WO-IB04208.
; XX
; PR   17-SEP-2001; 2001FR-0011978.
; XX
; PA   (MOLE-) MOLECULAR ENGINES LAB.
; XX
; PI   Telerman A,  Amson R,  Tuijnder M;
; XX
; DR   WPI; 2003-313353/30.
; XX
; PT   New isolated nucleic acid, useful for treating viral diseases
; PT   associated with tumors and cell degeneration, also related
; PT   polypeptides, antibodies and transfected cells  -
; XX
; PS   Disclosure; Page 701; 720pp; French.
; XX
; CC   The invention relates to a novel isolated 17 mer nucleic acid sequence,
; CC   given in the specification, a sequence containing at least 15
; CC   consecutive nucleotides from the 17 mer sequence, a sequence with, after
; CC   optimal alignment, at least 80 % identity to the 17 mer sequence, a
; CC   sequence that hybridizes to them under highly stringent conditions, or
; CC   the complement of any of them, or the corresponding RNA. The novel
; CC   isolated nucleic acids of the invention are useful as probes and primers
; CC   for detecting, identifying, quantifying and/or amplifying a nucleic acid,
; CC   e.g. as one component of a gene chip, in vitro as (anti)sense reagents,
; CC   and for production of recombinant polypeptides. Any of the nucleic acids,
; CC   polypeptides, vectors containing the nucleic acids, cells containing the
; CC   vector or antibodies directed against the polypeptides are useful for
; CC   preparation of pharmaceuticals for prevention and/or treatment of viral
; CC   diseases that are characterised by development of tumours or cell
; CC   degeneration, specifically cancer but also Alzheimer's disease and
; CC   schizophrenia. Analysis of the expression of the 17 mer nucleic acids in
```

```
; CC   patient samples is useful for diagnosis and/or prognosis of these
; CC   diseases. The polypeptides can also be used to generate antibodies, and
; CC   both the polypeptide and antibodies are useful as components of protein
; CC   chips. The nucleic acid sequences of the invention can be used in gene
; CC   therapy. This polynucleotide sequence represents a tumour suppression
; CC   related human fukutin oligonucleotide of the invention.
; XX
; SQ   Sequence 17 BP; 7 A; 3 C; 2 G; 5 T; 0 other;
;
;  ABT40072  Length: 17  October 16, 2003 08:46  Type: N  Check: 1008  ..
abt40072

  Query Match             0.3%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 0;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       4600 GCTCAAATAGGTCATCA 4616
              | |||||||| ||||||
Db          1 GATCAAATAGTTCATCA 17


RESULT 275
aca06562
;  TOIG of: aca06562  check: 847  from: 1  to: 17
;
; ID   ACA06562 standard; RNA; 17 BP.
; XX
; AC   ACA06562;
; XX
; DT   03-JUN-2003  (first entry)
; XX
; DE   NFKB sub-unit modulating inozyme substrate #381
; XX
; KW   Enzymatic nucleic acid; nuclear factor kappa B; NFKB; inozyme; zinzyme;
; KW   G-cleaver; amberzyme; cancer; REL-A activity; breast cancer; human;
; KW   lung cancer; prostate cancer; colorectal cancer; brain cancer;
; KW   oesophageal cancer; stomach cancer; bladder cancer; pancreatic cancer;
; KW   cervical cancer; head and neck cancer; ovarian cancer; melanoma;
; KW   lymphoma; glioma; multidrug resistant cancer; REL-A-specific inhibitor;
; KW   chemotherapy; paclitaxel; docetaxel; cisplatin; methotrexate;
; KW   cyclophosphamide; doxorubin; fluorouracil carboplatin; edatrexate;
; KW   gemcitabine; radiation therapy; inflammatory disease; asthma; diabetes;
; KW   rheumatoid arthritis; restenosis; Crohn's disease; obesity; ischaemia;
; KW   gene therapy; autoimmune disease; lupus; multiple sclerosis; sepsis;
; KW   transplant/graft rejection; reperfusion injury; glomerulonephritis;
; KW   allergic airway inflammation; inflammatory bowel disease; infection;
; KW   ss.
; XX
; OS   Homo sapiens.
; XX
; PN   US2002177568-A1.
; XX
; PD   28-NOV-2002.
; XX
; PF   23-MAY-2001; 2001US-0864785.
; XX
; PR   15-AUG-1994;   94US-0291932.
; PR   07-DEC-1992;   92US-0987132.
; PR   18-MAY-1994;   94US-0245466.
; PR   23-DEC-1996;   96US-0777916.
; XX
; PA   (STIN/) STINCHCOMB D T.
; PA   (MCSW/) MCSWIGGEN J.
; PA   (DRAP/) DRAPER K G.
; XX
; PI   Stinchcomb DT,  Mcswiggen J,  Draper KG;
; XX
; DR   WPI; 2003-340953/32.
; XX
; PT   Novel enzymatic nucleic acid molecules which down regulates expression
; PT   of a sequence encoding a subunit of nuclear factor kappa B useful for
; PT   treating cancer, inflammatory disorders and autoimmune diseases -
; XX
; PS   Claim 3; Page 32; 72pp; English.
; XX
; CC   The invention describes an enzymatic nucleic acid molecule (I) which down
; CC   regulates expression of a sequence encoding a subunit of nuclear factor
; CC   kappa B (NFKB), where (I) is an inozyme, zinzyme, G-cleaver or amberzyme
; CC   configuration. The enzymatic nucleic acid molecule is adapted to treat
; CC   cancer and is useful for down-regulating REL-A activity in a cell, for
; CC   treating a patient having a condition associated with the level of REL-A.
; CC   (I) is useful for cleaving RNA comprising a sequence of REL-A gene, in
; CC   the presence of a divalent cation, especially Mg^2^+. The enzymatic and
; CC   antisense nucleic acid molecules are useful for treating breast, lung,
; CC   prostate, colorectal, brain, oesophageal, stomach, bladder, pancreatic,
; CC   cervical, head and neck, ovarian cancer, melanoma, lymphoma, glioma or
; CC   multidrug resistant cancer. The method involves use of other drug
; CC   therapies such as monoclonal antibodies, REL-A-specific inhibitors or
; CC   chemotherapy including paclitaxel, docetaxel, cisplatin, methotrexate,
; CC   cyclophosphamide, doxorubin, fluorouracil carboplatin, edatrexate,
; CC   gemcitabine or radiation therapy. The enzymatic and antisense nucleic
; CC   acid molecules are also useful for treating inflammatory disease such as
; CC   rheumatoid arthritis, restenosis, asthma, Crohn's disease, diabetes,
; CC   obesity, autoimmune disease, lupus, multiple sclerosis, transplant/graft
; CC   rejection, gene therapy applications, ischaemia/reperfusion injury
; CC   (central nervous system (CNS) and myocardial), glomerulonephritis,
; CC   sepsis, allergic airway inflammation, inflammatory bowel disease or
; CC   infection. This sequence represents the substrate of a novel
; CC   enzymatic nucleic acid molecule.
; XX
; SQ   Sequence 17 BP; 1 A; 8 C; 5 G; 3 U; 0 other;
;
;  ACA06562  Length: 17  October 16, 2003 08:47  Type: N  Check: 847  ..
aca06562

  Query Match             0.3%;  Score 13.8;  DB 1;  Length 17;
  Best Local Similarity   76.5%;  Pred. No. 0;
  Matches   13;  Conservative    2;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       4058 CCTCAGGCTGAGGGCCC 4074
              ||||||||:: || |:|
Db          1 CCUCAGGCUGUGGCCCC 17


RESULT 276
abz77072
;  TOIG of: abz77072  check: 4907  from: 1  to: 20
;
; ID   ABZ77072 standard; DNA; 20 BP.
; XX
; AC   ABZ77072;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase phosphorothioate oligonucleotide SEQ:27.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; inhibition; ss.
; XX
; OS   Homo sapiens.
; OS   Synthetic.
; XX
; FH   Key             Location/Qualifiers
; FT   modified_base    1. .20
; FT                    /*tag=  a
; FT                    /mod_base= OTHER
; FT                    /note= "phosphorothioate linkages"
; FT   modified_base    1. .5
; FT                    /*tag=  b
; FT                    /mod_base= OTHER
; FT                    /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; FT   modified_base    16. .20
; FT                    /*tag=  c
```

; FT /mod_base= OTHER
; FT /note= "2'-O-methoxyethyl (2'-MOE) gapmer"
; XX
; PN WO2003012031-A2.
; XX
; PD 13-FEB-2003.
; XX
; PF 16-JUL-2002; 2002WO-US22676.
; XX
; PR 30-JUL-2001; 2001US-0918187.
; XX
; PA (ISIS-) ISIS PHARM INC.
; XX
; PI Crooke RM, Graham MJ;
; XX
; DR WPI; 2003-248160/24.
; XX
; PT New antisense oligonucleotides targeted to nucleic acids encoding human
; PT stearoyl-CoA desaturase, useful for treating diseases associated with
; PT the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT applications -
; XX
; PS Example 15; Page 94; 117pp; English.
; XX
; CC The present invention describes a compound (I) that is 8-50 nucleobases
; CC in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC desaturase, and which specifically hybridises with and inhibits the
; CC expression of human stearoyl-CoA desaturase, or which specifically
; CC hybridises with at least an 8-nucleobase portion of an active site on a
; CC nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC activities, and can be used in antisense therapy. The antisense compounds
; CC (I) can be used for modulating the expression of human stearoyl-CoA
; CC desaturase and for treating diseases or conditions associated with
; CC expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC The antisense compounds (I) can also be used for diagnostics,
; CC therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC inflammation or tumour formation, as research reagents and kits, and in
; CC distinguishing between functions of various members of a biological
; CC pathway. The present sequence represents a human stearoyl-CoA desaturase
; CC inhibiting chimeric phosphorothioate antisense oligonucleotide, which is
; CC given in an example from the present invention.
; XX
; SQ Sequence 20 BP; 6 A; 3 C; 6 G; 5 T; 0 other;
;
; ABZ77072 Length: 20 October 16, 2003 08:47 Type: N Check: 4907 ..
abz77072

Query Match 0.3%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 0;
Matches 15; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 2213 AAACAGCAGCTCATGGA 2229
|| |||||||||||||
Db 4 AATGAGCAGCTCATGGA 20

RESULT 277
abt07496
; TOIG of: abt07496 check: 6320 from: 1 to: 20
;
; ID ABT07496 standard; DNA; 20 BP.
; XX
; AC ABT07496;
; XX
; DT 14-NOV-2002 (first entry)
; XX
; DE Rat protein phosphatase 2 oligo inhibitor SEQ ID No 110.
; XX
; KW Cytostatic; antidiabetic; antisense therapy; aberrant insulin regulation;
; KW protein phosphatase 2 catalytic beta subunit; antisense compound; cancer;
; KW hyperproliferative disorder; diabetes; inflammation; tumour; rat; ds.
; XX
; OS Rattus norvegicus.
; XX
; PN WO200264737 A2.
; XX
; PD 22-AUG-2002.
; XX
; PF 31-JAN-2002; 2002WO-US02805.
; XX
; PR 09-FEB-2001; 2001US-0780045.
; XX
; PA (ISIS-) ISIS PHARM INC.
; XX
; PI Monia BP, Wyatt JR;
; XX
; DR WPI; 2002-657588/70.
; XX
; PT New antisense oligonucleotides targeted to nucleic acid encoding
; PT Protein Phosphatase 2 catalytic subunit beta, useful for treating
; PT diseases related to Protein Phosphatase 2 catalytic subunit beta
; PT expression, such as cancer -
; XX
; PS Example 16; Page 98; 137pp; English.
; XX
; CC The invention relates to a novel compound 8-50 nucleotides in length
; CC targeted to a nucleic acid molecule encoding a protein phosphatase 2
; CC catalytic beta subunit, where the compound specifically hybridises with
; CC and inhibits the expression of protein phosphatase 2 catalytic beta
; CC subunits, or specifically hybridises with at least an 8-nucleotide
; CC portion of an active site on a nucleic acid molecule encoding a protein
; CC phosphatase 2 catalytic beta subunit. The antisense compounds are useful
; CC for modulating the expression of protein phosphatase 2 catalytic beta
; CC subunits and for treating diseases or conditions associated with
; CC expression of protein phosphatase 2 catalytic beta subunits, e.g.
; CC aberrant insulin regulation or diabetes or a hyperproliferative disorder,
; CC particularly cancer. The antisense compounds are also useful for
; CC diagnostics, therapeutics, prophylaxis, e.g. to prevent or delay
; CC infection, inflammation or tumour formation, as research reagents and
; CC kits, and in distinguishing between functions of various members of a
; CC biological pathway. This polynucleotide sequence represents an
; CC oligonucleotide inhibitor of rat protein phosphatase 2 catalytic beta
; CC subunit mRNA levels of the invention.
; CC NOTE: This oligonucleotide contains phosphorothioate residues and has 2'
; CC MOE wings with a deoxy gap.
; XX
; SQ Sequence 20 BP; 7 A; 0 C; 1 G; 12 T; 0 other;
;
; ABT07496 Length: 20 October 16, 2003 08:46 Type: N Check: 6320 ..
abt07496

Query Match 0.3%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 0;
Matches 16; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 2395 TATATATACATATATACATT 2414
|| |||| |||| || ||
Db 1 TATATATGTATATATATTTT 20

RESULT 278
aaf49042/c
; TOIG of: aaf49042 check: 9613 from: 1 to: 15
;
; ID AAF49042 standard; DNA; 15 BP.
; XX
; AC AAF49042;
; XX
; DT 30-MAR-2001 (first entry)
; XX
; DE IGF-I oligonucleotide #2.
; XX
; KW Antisense therapy; antiproliferative; antiinflammatory; antipsoriatic;

; KW cytostatic; dermatological; cardiant; virucide; ophthalmological; keloid;
; KW skin disorder; Insulin-like Growth Factor 1 receptor; IGF-1; pityriasis;
; KW IGF binding protein; IGFBP-2; IGFBP3; inflammation; psoriasis; pilaris;
; KW growth factor mediated cell proliferation; ichthyosis; seborrhoea; ruba;
; KW keratosis; neoplasia; scleroderma; wart; skin cancer; sclerotic disease;
; KW hyperneovascular condition; hyperplasia; kidney disease;
; KW neovascular condition of the retina; ss.
; XX
; OS Homo sapiens.
; XX
; PN WO200078341-A1.
; XX
; PD 28-DEC-2000.
; XX
; PF 21-JUN-2000; 2000WO-AU00693.
; XX
; PR 21-JUN-1999; 99US-0140345.
; XX
; PA (MURD-) MURDOCH CHILDRENS RES INST.
; XX
; PI Wraight CJ, Werther GA, Edmondson SR;
; XX
; DR WPI; 2001-041421/05.
; XX
; PT Ameliorating the effects of a disorder, e.g. psoriasis, by
; PT administering UV (ultra-violet) treatment (optional) and an antisense
; PT nucleic acid that inhibits or reduces growth factor mediated cell
; PT proliferation and/or inflammation -
; XX
; PS Example 8; Page 60; 201pp; English.
; XX
; CC The present invention relates to a method for ameliorating the effects
; CC of skin disorders. The method comprises contacting the skin with an
; CC antisense oligonucleotide, (for Insulin-like Growth Factor [IGF]-1
; CC receptor, IGF binding protein [IGFBP]-2 or IGFBP3), which is capable of
; CC inhibiting or reducing growth factor mediated cell proliferation,
; CC inflammation and/or other disorders. The present sequence is an
; CC oligonucleotide which can be used to design the antisense
; CC oligonucleotides of the present invention (see AAF45151 and
; CC AAF45153-F45161). The method is useful for ameliorating the effects of
; CC psoriasis, ichthyosis, pityriasis, ruba, pilaris, seborrhoea, keloids,
; CC keratosis, neoplasias, scleroderma, warts, benign growths, cancers of the
; CC skin, a hyperneovascular condition such as a neovascular condition of the
; CC retina, brain or skin, growth factor-mediated malignancies, other
; CC sclerotic disease, kidney disease, hyperproliferation of the inside of
; CC blood vessels or any other hyperplasia.
; XX
; SQ Sequence 15 BP; 1 A; 0 C; 1 G; 13 T; 0 other;
;
; AAF49042 Length: 15 October 16, 2003 08:46 Type: N Check: 9613 ..
aaf49042

Query Match 0.3%; Score 13.4; DB 1; Length 15;
Best Local Similarity 93.3%; Pred. No. 0;
Matches 14; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 5204 TCTAAAAAAAAAAAA 5218
|| ||||||||||||
Db 15 TCAAAAAAAAAAAAA 1

RESULT 279
aaa25446/c
; TOIG of: aaa25446 check: 2743 from: 1 to: 17
;
; ID AAA25446 standard; DNA; 17 BP.
; XX
; AC AAA25446;
; XX
; DT 19-JUL-2000 (first entry)
; XX
; DE Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1944.
; XX
; KW Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
; KW hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
; KW gene expression modification; cancer; phosphorothioate; endonuclease;
; KW anticancer; breast cancer; endometrium cancer; ss.
; XX
; OS Homo sapiens.
; XX
; PN WO9954459-A2.
; XX
; PD 28-OCT-1999.
; XX
; PF 19-APR-1999; 99WO-US08547.
; XX
; PR 20-APR-1998; 98US-0082404.
; PR 23-JUN-1998; 98US-0103636.
; XX
; PA (RIBO-) RIBOZYME PHARM INC
; XX
; PI Thompson JD, Beigelman L, McSwiggen JA, Karpeisky A, Bellon L;
; PI Reynolds M, Zwick M, Jarvis T, Woolf T, Haeberli P;
; PI Matulic-Adamic J;
; XX
; DR WPI; 2000-013248/01.
; XX
; PT New nucleic acids that interact, and optionally cleave, target
; PT sequences, used to treat cancer -
; XX
; PS Claim 77; Page 79; 148pp; English.
; XX
; CC The present invention describes nucleic acids (A) that interact stably
; CC with a target sequence and contain at least one phosphoro(di)thioate
; CC link, having endonuclease activity. (A), and more generally any
; CC catalytic nucleic acid (A') that modulates expression of the oestrogen
; CC receptor gene, are used to treat cancer (particularly of breast or
; CC endometrium), in vivo or by transforming cells ex vivo and implanting
; CC treated cells, or for other conditions associated with levels of
; CC oestrogen receptor. Because of the high selectivity for targeted RNA, (A)
; CC can also be used to correlate inhibition of gene expression with
; CC alterations in phenotype, particularly for identification of therapeutic
; CC targets, and as research reagents (for RNA, in the same way that
; CC restriction endonucleases are used with DNA). The combination of
; CC modifications in (A) improves resistance to nucleases, binding affinity
; CC and/or activity. AAA23503 to AAA24747 represent oestrogen receptor
; CC hammerhead ribozyme sequences, and AAA24748 to AAA25992 represent their
; CC corresponding target sequences. AAA25993 to AAA26105 represent oestrogen
; CC receptor hairpin ribozyme sequences, and AAA26107 to AAA26218 represent
; CC their corresponding target sequences. AAA26219 to AAA26271 represent
; CC other ribozyme sequences and antisense oligonucleotides used in the
; CC exemplification of the present invention.
; XX
; SQ Sequence 17 BP; 1 A; 0 C; 1 G; 15 T; 0 other;
;
; AAA25446 Length: 17 October 16, 2003 08:46 Type: N Check: 2743 ..
aaa25446

Query Match 0.2%; Score 13; DB 1; Length 17;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 5207 AAAAAAAAAAAAA 5219
|||||||||||||
Db 17 AAAAAAAAAAAAA 5

RESULT 280
aaa25455
; TOIG of: aaa25455 check: 2075 from: 1 to: 17
;
; ID AAA25455 standard; DNA; 17 BP.
; XX
; AC AAA25455;
; XX
; DT 19-JUL-2000 (first entry)

```
; XX
; DE   Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1953.
; XX
; KW   Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
; KW   hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
; KW   gene expression modification; cancer; phosphorothioate; endonuclease;
; KW   anticancer; breast cancer; endometrium cancer; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO9954459-A2.
; XX
; PD   28-OCT-1999.
; XX
; PF   19-APR-1999;   99WO-US08547.
; XX
; PR   20-APR-1998;   98US-0082404.
; PR   23-JUN-1998;   98US-0103636.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC.
; XX
; PI   Thompson JD, Beigelman L, McSwiggen JA, Karpeisky A, Bellon L;
; PI   Reynolds M, Zwick M, Jarvis T, Woolf T, Haeberli P;
; PI   Matulic-Adamic J;
; XX
; DR   WPI; 2000-013248/01.
; XX
; PT   New nucleic acids that interact, and optionally cleave, target
; PT   sequences, used to treat cancer -
; XX
; PS   Claim 77; Page 79; 148pp; English.
; XX
; CC   The present invention describes nucleic acids (A) that interact stably
; CC   with a target sequence and contain at least one phosphoro(di)thioate
; CC   link, having endonuclease activity. (A), and more generally any
; CC   catalytic nucleic acid (A') that modulates expression of the oestrogen
; CC   receptor gene, are used to treat cancer (particularly of breast or
; CC   endometrium), in vivo or by transforming cells ex vivo and implanting
; CC   treated cells, or for other conditions associated with levels of
; CC   oestrogen receptor. Because of the high selectivity for targeted RNA, (A)
; CC   can also be used to correlate inhibition of gene expression with
; CC   alterations in phenotype, particularly for identification of therapeutic
; CC   targets, and as research reagents (for RNA, in the same way that
; CC   restriction endonucleases are used with DNA). The combination of
; CC   modifications in (A) improves resistance to nucleases, binding affinity
; CC   and/or activity. AAA23503 to AAA24747 represent oestrogen receptor
; CC   hammerhead ribozyme sequences, and AAA24748 to AAA25992 represent their
; CC   corresponding target sequences. AAA25993 to AAA26105 represent oestrogen
; CC   receptor hairpin ribozyme sequences, and AAA26107 to AAA26218 represent
; CC   their corresponding target sequences. AAA26219 to AAA26271 represent
; CC   other ribozyme sequences and antisense oligonucleotides used in the
; CC   exemplification of the present invention.
; XX
; SQ   Sequence 17 BP; 2 A; 0 C; 1 G; 14 T; 0 other;
;
;  AAA25455  Length: 17  October 16, 2003 08:46  Type: N  Check: 2075  ..
aaa25455

  Query Match              0.2%;  Score 13;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       4504 TTTTTTTTTTTTG 4516
              |||||||||||||
Db          1 TTTTTTTTTTTTG 13


RESULT 281
abt38630/c
;  TOIG of: abt38630  check: 140  from: 1  to: 17
;
; ID   ABT38630 standard; DNA; 17 BP.
; XX
; AC   ABT38630;
; XX
; DT   12-JUN-2003  (first entry)
; XX
; DE   Tumour suppression related human fukutin oligo SEQ ID No 4267.
; XX
; KW   Cytostatic; virucide; neuroprotective; nootropic; neuroleptic; gene chip;
; KW   antisense; sense; tumour; cell degeneration; cancer; Alzheimer's disease;
; KW   schizophrenia; protein chip; gene therapy; tumour suppression;
; KW   human fukutin; ds.
; XX
; OS   Homo sapiens.
; XX
; PN   WO2003025175-A2.
; XX
; PD   27-MAR-2003.
; XX
; PF   17-SEP-2002; 2002WO-IB004208.
; XX
; PR   17-SEP-2001; 2001FR-0011938.
; XX
; PA   (MOLE-) MOLECULAR ENGINES LAB.
; XX
; PI   Telerman A, Amson R, Tuljnder M;
; XX
; DR   WPI; 2003-313353/30.
; XX
; PT   New isolated nucleic acid, useful for treating viral diseases
; PT   associated with tumors and cell degeneration, also related
; PT   polypeptides, antibodies and transfected cells -
; XX
; PS   Disclosure; Page 532; 720pp; French.
; XX
; CC   The invention relates to a novel isolated 17 mer nucleic acid sequence,
; CC   given in the specification, a sequence containing at least 15
; CC   consecutive nucleotides from the 17 mer sequence, a sequence with, after
; CC   optimal alignment, at least 80 % identity to the 17 mer sequence, a
; CC   sequence that hybridizes to them under highly stringent conditions, or
; CC   the complement of any of them, or the corresponding RNA. The novel
; CC   isolated nucleic acids of the invention are useful as probes and primers
; CC   for detecting, identifying, quantifying and/or amplifying a nucleic acid,
; CC   e.g. as one component of a gene chip, in vitro as (anti)sense reagents,
; CC   and for production of recombinant polypeptides. Any of the nucleic acids,
; CC   polypeptides, vectors containing the nucleic acids, cells containing the
; CC   vector or antibodies directed against the polypeptides are useful for
; CC   preparation of pharmaceuticals for prevention and/or treatment of viral
; CC   diseases that are characterised by development of tumours or cell
; CC   degeneration, specifically cancer but also Alzheimer's disease and
; CC   schizophrenia. Analysis of the expression of the 17 mer nucleic acids in
; CC   patient samples is useful for diagnosis and/or prognosis of these
; CC   diseases. The polypeptides can also be used to generate antibodies, and
; CC   both the polypeptide and antibodies are useful as components of protein
; CC   chips. The nucleic acid sequences of the invention can be used in gene
; CC   therapy. This polynucleotide sequence represents a tumour suppression
; CC   related human fukutin oligonucleotide of the invention.
; XX
; SQ   Sequence 17 BP; 12 A; 2 C; 1 G; 2 T; 0 other;
;
;  ABT38630  Length: 17  October 16, 2003 08:46  Type: N  Check: 140  ..
abt38630

  Query Match              0.2%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   87.5%;  Pred. No. 0;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy       4504 TTTTTTTTTTTTGGGT 4519
              |||||||||||| || |
Db         17 TTTTTTTTTTTAGGAT 2


RESULT 282
aad23152
;  TOIG of: aad23152  check: 8391  from: 1  to: 14
```

```
;
; ID   AAD23152 standard; DNA; 14 BP.
; XX
; AC   AAD23152;
; XX
; DT   26-FEB-2002  (first entry)
; XX
; DE   Human lung tumour-specific cDNA synthesising 3' RT-PCR anchored primer.
; XX
; KW   Human; lung tumour protein; immunostimulant; cytostatic; gene therapy;
; KW   antisense-therapy; vaccine; immune response; lung cancer; RT-PCR primer;
; KW   ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO200172295-A2.
; XX
; PD   04-OCT-2001.
; XX
; PF   28-MAR-2001; 2001WO-US09991.
; XX
; PR   29-MAR-2000; 2000US-0538037.
; PR   05-JUN-2000; 2000US-0588937.
; PR   18-AUG-2000; 2000US-0640878.
; PR   22-SEP-2000; 2000US-234517P.
; PR   01-NOV-2000; 2000US-0704512.
; PR   14-DEC-2000; 2000US-0738973.
; XX
; PA   (CORI-) CORIXA CORP.
; XX
; PI   Reed SG, Lodes MJ, Mohamath R, Secrist H, Benson DR, Indirias CY;
; PI   Henderson RA, Fling SP, Algate PA, Elliot M, Mannion J, Kalos MD;
; XX
; DR   WPI; 2001-639201/73.
; XX
; PT   New human lung-specific polynucleotides and polypeptides for the
; PT   diagnosis and treatment of disease e.g. lung cancer
; XX
; PS   Example 1; Page 162; 378pp; English.
; XX
; CC   The invention relates to isolated lung tumour-specific proteins and
; CC   their corresponding cDNA molecules. Lung tumour-specific proteins and
; CC   their antigen-presenting cells are useful for stimulating and/or
; CC   expanding T cells specific for a tumour protein, and for inhibiting
; CC   the development of cancer. The invention also relates to a composition
; CC   useful for stimulating an immune response, and for treating cancer. The
; CC   lung tumour specific oligonucleotide is useful in gene therapy and for
; CC   diagnosis, detection and treatment of lung cancer. The present DNA
; CC   sequence is 3' RT (reverse transcriptase)-PCR anchored primer which is
; CC   used for synthesising human lung tumour-specific cDNA.
; XX
; SQ   Sequence 14 BP; 1 A; 0 C; 1 G; 12 T; 0 other;
;
;  AAD23152  Length: 14  October 16, 2003 08:46  Type: N  Check: 8391  ..
aad23152

  Query Match             0.2%;  Score 12.4;  DB 1;  Length 14;
  Best Local Similarity   92.9%;  Pred. No. 0;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       4503 TTTTTTTTTTTTTG 4516
              ||||||||||||| |
Db          1 TTTTTTTTTTTTAG 14


RESULT 283
aat36896
;  TOIG of: aat36896  check: 8391  from: 1  to: 14
;
; ID   AAT36896 standard; DNA; 14 BP.
; XX
; AC   AAT36896;
; XX
; DT   23-OCT-1996  (first entry)
; XX
; DE   Candida albicans leukotriene A4 hydrolase cDNA PCR primer.
; XX
; KW   Leukotriene A4 hydrolase; pro-inflammatory; reduced;
; KW   5,6-dihydroxy-7,9,11,14-eicosatetraenoic acid; immune response;
; KW   expression vector; recombinant production; antibody generation;
; KW   diagnostic agent; passive immunisation; vaccine; treatment;
; KW   prevention; infection; reagent; detection; modulation;
; KW   inflammatory response; antisense; prevention; PCR; primer;
; KW   polymerase chain reaction; ss.
; XX
; OS   Synthetic.
; XX
; PN   US5529916-A.
; XX
; PD   25-JUN-1996.
; XX
; PF   01-NOV-1994;   94US-0332818
; XX
; PR   01-NOV-1994;   94US-0332818.
; XX
; PA   (STRD ) UNIV LELAND STANFORD JUNIOR.
; XX
; PI   Cormack BP,  Falkow S;
; XX
; DR   WPI; 1996-308739/31.
; XX
; PT   Recombinant DNA encoding yeast leukotriene A4 hydrolase - and
; PT   related vectors and transformed cells, producing yeast hydrolase
; PT   useful, e.g. as vaccine against Candida infection and as diagnostic
; PT   reagent
; XX
; PS   Example 1; Columns 23-24; 24pp; English.
; XX
; CC   The present sequence is a primer for the C. albicans leukotriene A4
; CC   (LTA4) hydrolase, cDNA. The hydrolase converts LTA4 to (probably)
; CC   5,6-dihydroxy-7,9,11,14 eicosatetraenoic acid, which is less
; CC   pro-inflammatory than the LTB4 produced by the mammalian enzyme,
; CC   therefore reducing the immune response to C. albicans. An
; CC   expression vector contg. the hydrolase cDNA can be used to produce
; CC   the hydrolase, which can be used to generate antibodies (as
; CC   diagnostic agents, or for passive immunisation), as a vaccine to
; CC   treat or prevent Candida infection, as a reagent to detect
; CC   antibodies and to reduce/modulate an inflammatory response by
; CC   systemic or topical application. Nucleic acid antisense to the
; CC   hydrolase cDNA may prevent hydrolase expression.
; XX
; SQ   Sequence 14 BP; 1 A; 0 C; 1 G; 12 T; 0 other;
;
;  AAT36896  Length: 14  October 16, 2003 08:46  Type: N  Check: 8391  ..
aat36896

  Query Match             0.2%;  Score 12.4;  DB 1;  Length 14;
  Best Local Similarity   92.9%;  Pred. No. 0;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       4503 TTTTTTTTTTTTTG 4516
              ||||||||||||| |
Db          1 TTTTTTTTTTTTAG 14


RESULT 284
aav12217/c
;  TOIG of: aav12217  check: 8469  from: 1  to: 14
;
; ID   AAV12217 standard; DNA; 14 BP.
; XX
; AC   AAV12217;
; XX
; DT   22-JUN-1998  (first entry)
; XX
; DE   Poly(T) oligonucleotide used in differential display PCR.
```

```
; XX
; KW   Retinoid metabolising protein; P450RAI; retinoid oxidase;
; KW   retinoic acid; zebrafish; inhibitor; antisense; cancer;
; KW   actinic keratosis; oral leukoplakia; head tumour; neck tumour;
; KW   non-small cell lung carcinoma; basal cell carcinoma;
; KW   acute promyelocytic leukaemia; skin cancer; acne; psoriasis;
; KW   ichthyosis; therapy; diagnosis; screening; differential display;
; KW   PCR; primer; ss.
; XX
; OS   Synthetic.
; XX
; PN   WO9749815-A1.
; XX
; PD   31-DEC-1997.
; XX
; PF   23-JUN-1997;   97WO-CA00440.
; XX
; PR   01-OCT-1996;   96US-0724466.
; PR   21-JUN-1996;   96US-0667546.
; XX
; PA   (TOOH ) UNIV QUEENS KINGSTON.
; XX
; PI   Beckett BR, Jones G, Petkovich PM, White JA;
; XX
; DR   WPI; 1998-077178/07.
; XX
; PT   Retinoid metabolising protein - useful to develop products to treat,
; PT   e.g. cancer, actinic keratosis, oral leukoplakia, acne, psoriasis or
; PT   ichthyosis
; XX
; PS   Disclosure; Page 14; 110pp; English.
; XX
; CC   PolyT oligonucleotides (see AAV12217-28) were used in reverse
; CC   transcription reactions on polyA+ RNA isolated from the fins of
; CC   control or retinoic acid-treated zebrafish (Danio rerio). Several
; CC   combinations of the polyT primers were used with degenerate
; CC   upstream primers (see AAV12229-33) for differential display PCR.
; CC   Bands demonstrating reproducible differential amplifications were
; CC   found using the primers given in AAV12221 and AAV12231. This PCR
; CC   product was reamplified (see AAV12234-35). A differential display
; CC   product (see AAV12213) which exhibited a dependence on the presence
; CC   of retinoic acid for its expression was isolated, and was used to
; CC   isolate a full-length clone (see AAV12203) coding for a novel
; CC   retinoid metabolising protein (see AAW44159), designated zP450RAI.
; XX
; SQ   Sequence 14 BP; 0 A; 0 C; 2 G; 12 T; 0 other;
;
;  AAV12217  Length: 14  October 16, 2003 08:46  Type: N  Check: 8469  ..
aav12217

  Query Match              0.2%;  Score 12.4;  DB 1;  Length 14;
  Best Local Similarity   92.9%;  Pred. No. 0;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       5205 CTAAAAAAAAAAAAA 5218
                | ||||||||||||
Db         14 CCAAAAAAAAAAAAA 1


RESULT 285
aav12221
;  TOIG of: aav12221  check: 8391  from: 1  to: 14
;
; ID   AAV12221 standard; DNA; 14 BP.
; XX
; AC   AAV12221;
; XX
; DT   22-JUN-1998  (first entry)
; XX
; DE   Poly(T) oligonucleotide used in differential display PCR.
; XX
; KW   Retinoid metabolising protein; P450RAI; retinoid oxidase;
; KW   retinoic acid; zebrafish; inhibitor; antisense; cancer;
; KW   actinic keratosis; oral leukoplakia; head tumour; neck tumour;
; KW   non-small cell lung carcinoma; basal cell carcinoma;
; KW   acute promyelocytic leukaemia; skin cancer; acne; psoriasis;
; KW   ichthyosis; therapy; diagnosis; screening; differential display;
; KW   PCR; primer; ss.
; XX
; OS   Synthetic.
; XX
; PN   WO9749815-A1.
; XX
; PD   31-DEC-1997.
; XX
; PF   23-JUN-1997;   97WO-CA00440.
; XX
; PR   01-OCT-1996;   96US-0724466.
; PR   21-JUN-1996;   96US-0667546.
; XX
; PA   (TOOH ) UNIV QUEENS KINGSTON.
; XX
; PI   Beckett BR, Jones G, Petkovich PM, White JA;
; XX
; DR   WPI; 1998-077178/07.
; XX
; PT   Retinoid metabolising protein - useful to develop products to treat,
; PT   e.g. cancer, actinic keratosis, oral leukoplakia, acne, psoriasis or
; PT   ichthyosis
; XX
; PS   Disclosure; Page 14; 110pp; English.
; XX
; CC   PolyT oligonucleotides (see AAV12217-28) were used in reverse
; CC   transcription reactions on polyA+ RNA isolated from the fins of
; CC   control or retinoic acid-treated zebrafish (Danio rerio). Several
; CC   combinations of the polyT primers were used with degenerate
; CC   upstream primers (see AAV12229-33) for differential display PCR.
; CC   Bands demonstrating reproducible differential amplifications were
; CC   found using the primers given in AAV12221 and AAV12231. This PCR
; CC   product was reamplified (see AAV12234-35). A differential display
; CC   product (see AAV12213) which exhibited a dependence on the presence
; CC   of retinoic acid for its expression was isolated, and was used to
; CC   isolate a full-length clone (see AAV12203) coding for a novel
; CC   retinoid metabolising protein (see AAW44159), designated zP450RAI.
; XX
; SQ   Sequence 14 BP; 1 A; 0 C; 1 G; 12 T; 0 other;
;
;  AAV12221  Length: 14  October 16, 2003 08:46  Type: N  Check: 8391  ..
aav12221

  Query Match              0.2%;  Score 12.4;  DB 1;  Length 14;
  Best Local Similarity   92.9%;  Pred. No. 0;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       4503 TTTTTTTTTTTTTG 4516
                ||||||||||| |
Db          1 TTTTTTTTTTTTAG 14


RESULT 286
aax19468
;  TOIG of: aax19468  check: 8391  from: 1  to: 14
;
; ID   AAX19468 standard; DNA; 14 BP.
; XX
; AC   AAX19468;
; XX
; DT   21-MAY-1999  (first entry)
; XX
; DE   Human senescence factor p23 T12 anchor primer SEQ ID NO:10.
; XX
; KW   Human; senescence factor; p23; cancer; persistent inflammation;
; KW   proliferative disorder; degenerative disorder; primer; ss.
; XX
; OS   Synthetic.
; OS   Homo sapiens.
```

```
; XX
; PN   WO9907893-A1.
; XX
; PD   18-FEB-1999.
; XX
; PF   05-AUG-1998;   98WO-US16343.
; XX
; PR   08-AUG-1997;   97US-0908873.
; XX
; PA   (UNIW ) UNIV WASHINGTON.
; XX
; PI   Hosier S,  Kubbies M,  Swisshelm K;
; XX
; DR   WPI; 1999-167454/14.
; XX
; PT   Newly isolated nucleic acid molecule (designated p23) encoding a p23
; PT   polypeptide - useful for inducing a senescence phenotype in a cell
; XX
; PS   Example 1; Page 18; 44pp; English.
; XX
; CC   The present invention describes human senescence factor p23. An
; CC   expression vector for p23 is useful for inducing a senescent phenotype
; CC   in a cell (preferably eukaryotic). This may help in regulating diseases,
; CC   including cancer, persistent inflammation, and various proliferative and
; CC   degenerative disorders. These transgenic cells are useful in gene
; CC   therapy for treating cancer, particularly where antisense
; CC   oligonucleotides are useful for blocking normal or mutant p23 expression
; CC   in cancer cells or other proliferating cells. Transgenic cells are also
; CC   useful for producing the p23 polypeptide in large quantities. The
; CC   antibodies are useful for raising antiserum against p23, and for
; CC   identifying senescent cells in culture and tissue biopsies. The p23
; CC   polynucleotides are useful for modulating or altering p23 activity in a
; CC   cell, and for identifying and isolating the whole gene encoding p23,
; CC   and variants of p23. Assays based on p23 elements, which detect p23
; CC   levels and activity are useful as diagnostic markers for staging tumours,
; CC   determining prognosis, and/or predicting therapeutic success. These
; CC   elements also provide an assay for detecting chromosomal rearrangements
; CC   in chromosome 3 in a human cell. The isolation of the p23 polynucleotide
; CC   permits the manipulation of malignant growth in cancer. The present
; CC   sequence represents a primer used in an example from the present
; CC   invention.
; XX
; SQ   Sequence 14 BP; 1 A; 0 C; 1 G; 12 T; 0 other;
;
;  AAX19468  Length: 14  October 16, 2003 08:46  Type: N  Check: 8391  ..
aax19468

  Query Match             0.2%;  Score 12.4;  DB 1;  Length 14;
  Best Local Similarity   92.9%;  Pred. No. 0;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       4503 TTTTTTTTTTTTTG 4516
              ||||||||||||| |
Db          1 TTTTTTTTTTTTAG 14


RESULT 287
aax19469/c
;  TOIG of: aax19469  check: 8469  from: 1  to: 14
;
; ID   AAX19469 standard; DNA; 14 BP.
; XX
; AC   AAX19469;
; XX
; DT   21-MAY-1999  (first entry)
; XX
; DE   Human senescence factor p23 T12 anchor primer SEQ ID NO:11.
; XX
; KW   Human; senescence factor; p23; cancer; persistent inflammation;
; KW   proliferative disorder; degenerative disorder; primer; ss.
; XX
; OS   Synthetic.
; OS   Homo sapiens.
; XX
; PN   WO9907893-A1.
; XX
; PD   18-FEB-1999.
; XX
; PF   05-AUG-1998;   98WO-US16343.
; XX
; PR   08-AUG-1997;   97US-0908873.
; XX
; PA   (UNIW ) UNIV WASHINGTON.
; XX
; PI   Hosier S,  Kubbies M,  Swisshelm K;
; XX
; DR   WPI; 1999-167454/14.
; XX
; PT   Newly isolated nucleic acid molecule (designated p23) encoding a p23
; PT   polypeptide - useful for inducing a senescence phenotype in a cell
; XX
; PS   Example 1; Page 18; 44pp; English.
; XX
; CC   The present invention describes human senescence factor p23. An
; CC   expression vector for p23 is useful for inducing a senescent phenotype
; CC   in a cell (preferably eukaryotic). This may help in regulating diseases,
; CC   including cancer, persistent inflammation, and various proliferative and
; CC   degenerative disorders. These transgenic cells are useful in gene
; CC   therapy for treating cancer, particularly where antisense
; CC   oligonucleotides are useful for blocking normal or mutant p23 expression
; CC   in cancer cells or other proliferating cells. Transgenic cells are also
; CC   useful for producing the p23 polypeptide in large quantities. The
; CC   antibodies are useful for raising antiserum against p23, and for
; CC   identifying senescent cells in culture and tissue biopsies. The p23
; CC   polynucleotides are useful for modulating or altering p23 activity in a
; CC   cell, and for identifying and isolating the whole gene encoding p23,
; CC   and variants of p23. Assays based on p23 elements, which detect p23
; CC   levels and activity are useful as diagnostic markers for staging tumours,
; CC   determining prognosis, and/or predicting therapeutic success. These
; CC   elements also provide an assay for detecting chromosomal rearrangements
; CC   in chromosome 3 in a human cell. The isolation of the p23 polynucleotide
; CC   permits the manipulation of malignant growth in cancer. The present
; CC   sequence represents a primer used in an example from the present
; CC   invention.
; XX
; SQ   Sequence 14 BP; 0 A; 0 C; 2 G; 12 T; 0 other;
;
;  AAX19469  Length: 14  October 16, 2003 08:46  Type: N  Check: 8469  ..
aax19469

  Query Match             0.2%;  Score 12.4;  DB 1;  Length 14;
  Best Local Similarity   92.9%;  Pred. No. 0;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       5205 CTAAAAAAAAAAAA 5218
              ||| |||| ||||
Db         14 CCAAAAAAAAAAAA 1


RESULT 288
abz77051/c
;  TOIG of: abz77051  check: 6391  from: 1  to: 21
;
; ID   ABZ77051 standard; DNA; 21 BP.
; XX
; AC   ABZ77051;
; XX
; DT   07-MAY-2003  (first entry)
; XX
; DE   Human stearoyl-CoA desaturase probe SEQ ID NO:6.
; XX
; KW   Human; stearoyl-CoA desaturase; phosphorothioate; 2'-O-methoxyethyl;
; KW   2'-MOE; cardiovascular; antiarteriosclerotic; antilipaemic; cytostatic;
; KW   antiinflammatory; antisense therapy; antisense oligonucleotide; tumour;
; KW   abnormal lipid metabolism; abnormal cholesterol metabolism; infection;
; KW   atherosclerosis; cardiovascular disease; inflammation; chromosome 10;
```

```
; KW   enzyme; probe; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO2003012031-A2.
; XX
; PD   13-FEB-2003.
; XX
; PF   16-JUL-2002; 2002WO-US22676.
; XX
; PR   30-JUL-2001; 2001US-0918187.
; XX
; PA   (ISIS-) ISIS PHARM INC.
; XX
; PI   Crooke RM, Graham MJ;
; XX
; DR   WPI; 2003-248160/24.
; XX
; PT   New antisense oligonucleotides targeted to nucleic acids encoding human
; PT   stearoyl-CoA desaturase, useful for treating diseases associated with
; PT   the desaturase, e.g. atherosclerosis, and in diagnostic and research
; PT   applications -
; XX
; PS   Example 13; Page 92; 117pp; English.
; XX
; CC   The present invention describes a compound (I) that is 8-50 nucleobases
; CC   in length targeted to a nucleic acid molecule encoding human stearoyl-CoA
; CC   desaturase, and which specifically hybridises with and inhibits the
; CC   expression of human stearoyl-CoA desaturase, or which specifically
; CC   hybridises with at least an 8-nucleobase portion of an active site on a
; CC   nucleic acid molecule encoding human stearoyl-CoA desaturase. Human
; CC   stearoyl-CoA desaturase is mapped to chromosome 10. (I) has antilipaemic,
; CC   cardiovascular, antiarteriosclerotic, cytostatic and antiinflammatory
; CC   activities, and can be used in antisense therapy. The antisense compounds
; CC   (I) can be used for modulating the expression of human stearoyl-CoA
; CC   desaturase and for treating diseases or conditions associated with
; CC   expression of human stearoyl-CoA desaturase, e.g. abnormal lipid or
; CC   cholesterol metabolism, atherosclerosis, or cardiovascular diseases.
; CC   The antisense compounds (I) can also be used for diagnostics,
; CC   therapeutics and prophylaxis, e.g. to prevent or delay infection,
; CC   inflammation or tumour formation, as research reagents and kits, and in
; CC   distinguishing between functions of various members of a biological
; CC   pathway. The present sequence represents a probe for human stearoyl-CoA
; CC   desaturase, which is used in an example from the present invention.
; XX
; SQ   Sequence 21 BP; 4 A; 9 C; 5 G; 3 T; 0 other;
;
;  ABZ77051  Length: 21  October 16, 2003 08:46  Type: N  Check: 6391  ..
abz77051

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  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy       1258 GGCCGCCATCTTGG 1271
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Db         14 GGCCGGCATCTTGG 1

RESULT 289
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;  TOIG of: aaa25445  check: 2711  from: 1  to: 17
;
; ID   AAA25445 standard; DNA; 17 BP.
; XX
; AC   AAA25445;
; XX
; DT   19-JUL-2000  (first entry)
; XX
; DE   Oestrogen receptor hammerhead ribozyme target sequence SEQ ID NO:1943.
; XX
; KW   Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
; KW   hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
; KW   gene expression modification; cancer; phosphorothioate; endonuclease;
; KW   anticancer; breast cancer; endometrium cancer; ss.
; XX
; OS   Homo sapiens.
; XX
; PN   WO9954459-A2.
; XX
; PD   28-OCT-1999.
; XX
; PF   19-APR-1999;   99WO-US08547.
; XX
; PR   20-APR-1998;   98US-0082404.
; PR   23-JUN-1998;   98US-0103636.
; XX
; PA   (RIBO-) RIBOZYME PHARM INC.
; XX
; PI   Thompson JD, Beigelman L, McSwiggen JA, Karpeisky A, Bellon L;
; PI   Reynolds M, Zwick M, Jarvis T, Woolf T, Haeberli P;
; PI   Matulic-Adamic J;
; XX
; DR   WPI; 2000-013248/01.
; XX
; PT   New nucleic acids that interact, and optionally cleave, target
; PT   sequences, used to treat cancer -
; XX
; PS   Claim 77; Page 79; 148pp; English.
; XX
; CC   The present invention describes nucleic acids (A) that interact stably
; CC   with a target sequence and contain at least one phosphoro(di)thioate
; CC   link, having endonuclease activity. (A), and more generally any
; CC   catalytic nucleic acid (A') that modulates expression of the oestrogen
; CC   receptor gene, are used to treat cancer (particularly of breast or
; CC   endometrium), in vivo or by transforming cells ex vivo and implanting
; CC   treated cells, or for other conditions associated with levels of
; CC   oestrogen receptor. Because of the high selectivity for targeted RNA, (A)
; CC   can also be used to correlate inhibition of gene expression with
; CC   alterations in phenotype, particularly for identification of therapeutic
; CC   targets, and as research reagents (for RNA, in the same way that
; CC   restriction endonucleases are used with DNA). The combination of
; CC   modifications in (A) improves resistance to nucleases, binding affinity
; CC   and/or activity. AAA23503 to AAA24747 represent oestrogen receptor
; CC   hammerhead ribozyme sequences, and AAA24748 to AAA25992 represent their
; CC   corresponding target sequences. AAA25993 to AAA26105 represent oestrogen
; CC   receptor hairpin ribozyme sequences, and AAA26107 to AAA26218 represent
; CC   their corresponding target sequences. AAA26219 to AAA26271 represent
; CC   other ribozyme sequences and antisense oligonucleotides used in the
; CC   exemplification of the present invention.
; XX
; SQ   Sequence 17 BP; 1 A; 0 C; 1 G; 15 T; 0 other;
;
;  AAA25445  Length: 17  October 16, 2003 08:46  Type: N  Check: 2711  ..
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Db         17 AAAAAAAAAAAAACTAAA 1

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abk03642
;  TOIG of: abk03642  check: 543  from: 1  to: 17
;
; ID   ABK03642 standard; RNA; 17 BP.
; XX
; AC   ABK03642;
; XX
; DT   12-MAR-2002  (first entry)
; XX
; DE   Human CD20 DNAzyme #96.
```

; XX
; KW Human; ss; antisense therapy; cytostatic; antiinflammatory; haemostatic;
; KW cerebroprotective; nootropic; neuroprotective; antiparkinsonian;
; KW muscular; CD20; neurite growth inhibitor gene; NOGO; hammerhead ribozyme;
; KW DNAzyme; inozyme; G-cleaver; amberzyme; zinzyme; lymphoma; leukaemia;
; KW B-cell lymphoma; non-Hodgkin's lymphoma; NHL; lymphocytic leukaemia;
; KW human immunodeficiency virus; HIV associated NHL; mantle-cell lymphoma;
; KW MCL; immunocytoma; IMC; immune thrombocytopaenia; stroke; dementia;
; KW inflammatory arthropathy; central nervous system injury;
; KW cerebrovascular accident; CVA; Alzheimer's disease; multiple sclerosis;
; KW chemotherapy-induced neuropathy; amyotrophic lateral sclerosis; ALS;
; KW Parkinson's disease; ataxia; Huntington's disease;
; KW Creutzfeldt-Jakob disease; muscular dystrophy; neurodegenerative disease.
; XX
; OS Homo sapiens.
; OS Synthetic.
; XX
; PN WO200159103-A2.
; XX
; PD 16-AUG-2001.
; XX
; PF 09-FEB-2001; 2001WO-US04273.
; XX
; PR 11-FEB-2000; 2000US-181797P.
; PR 28-FEB-2000; 2000US-185516P.
; PR 06-MAR-2000; 2000US-187128P.
; XX
; PA (RIBO-) RIBOZYME PHARM INC.
; PA (BLAT/) BLATT L.
; PA (MCSW/) MCSWIGGEN J.
; PA (CHOW/) CHOWRIRA B M.
; XX
; PI Blatt L, McSwiggen J, Chowrira BM;
; XX
; DR WPI; 2001-607195/69.
; XX
; PT Nucleic acid molecules, e.g., enzymatic nucleic acids and antisense
; PT constructs, which down regulate expression of a CD20 gene or neurite
; PT growth inhibitor gene useful for treating, e.g., lymphoma, leukemia,
; PT and central nervous system injury -
; XX
; PS Claim 30; Page 161; 200pp; English.
; XX
; CC The invention relates to a nucleic acid molecule which down regulates
; CC expression of a CD20 gene and a nucleic acid molecule which down
; CC regulates expression of a neurite growth inhibitor gene (NOGO).
; CC The nucleic acids may be enzymatic nucleic acids (e.g. a ribozyme or a
; CC DNAzyme) an Inozyme (an endolytic nucleic acid cleaving a an RNA molecule
; CC possessing an NCH motif), a G-cleaver (cleaving RNA with a NYN
; CC motif) pr an amberzyme (cleaving RNA with an NGN triplet), a zinzyme
; CC (cleaving RNA with a YGY motif). The CD20-targetting nucleic acid is used
; CC to cleave RNA of CD20 in the presence of a divalent cation that is
; CC preferably Mg^2^+. Furthermore, it may be contacted with a cell to reduce
; CC CD20 activity of the cell and treat a patient having a condition
; CC associated with the level of CD20. The treatment may further comprise the
; CC use of one or more therapies. In particular, the CD20 targetting
; CC nucleic acid may be used to treat lymphoma, leukaemia, B-cell
; CC lymphoma, low-grade or follicular non-Hodgkin's lymphoma (NHL), bulky
; CC low-grade or follicular NHL, lymphocytic leukaemia, HIV (human
; CC immunodeficiency virus) associated NHL, mantle-cell lymphoma (MCL),
; CC immunocytoma (IMC), small B-cell lymphocytic lymphoma, immune
; CC thrombocytopaenia, and inflammatory arthropathy. The NOGO-targetting
; CC nucleic acid is used to cleave RNA of the NOGO gene in the presence of a
; CC divalent cation that is preferably Mg^2^+. Furthermore, the nucleic acid
; CC may be contacted with a cell to reduce NOGO activity of the cell and
; CC treat a patient having a condition associated with the level of NOGO. The
; CC treatment may further comprise the use of one or more therapies.
; CC In particular, the NOGO-targetting nucleic acid may be used to treat
; CC central nervous system (CNS) injury and cerebrovascular accident (CVA,
; CC stroke), Alzheimer's disease, dementia, multiple sclerosis (MS),
; CC chemotherapy-induced neuropathy, amyotrophic lateral sclerosis (ALS),
; CC Parkinson's disease, ataxia, Huntington's disease, Creutzfeldt-Jakob
; CC disease, muscular dystrophy, and/or other neurodegenerative disease
; CC states which respond to the modulation of NOGO expression. The
; CC present sequence is a DNAzyme molecule of the invention.
; XX
; SQ Sequence 17 BP; 13 A; 2 C; 0 G; 2 U; 0 other;
;
; ABK03642 Length: 17 October 16, 2003 08:46 Type: N Check: 543 ..
abk03642

Query Match 0.2%; Score 12.2; DB 1; Length 17;
Best Local Similarity 76.5%; Pred. No. 0;
Matches 13; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

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Db 1 AAAAAAAAAUAACAACU 17

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Job time : 18 secs